FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

OCTOBER, 1950

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San Francisco Fire Department Stages Water Drill for Delegates Attending I.A.F.C. Conference

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WHY

1. Simplicity In asphyxial emergencies speed saves lives and simplicity means speed. Emersons have it. Turn on the oxygen, move one lever and apply the mask.

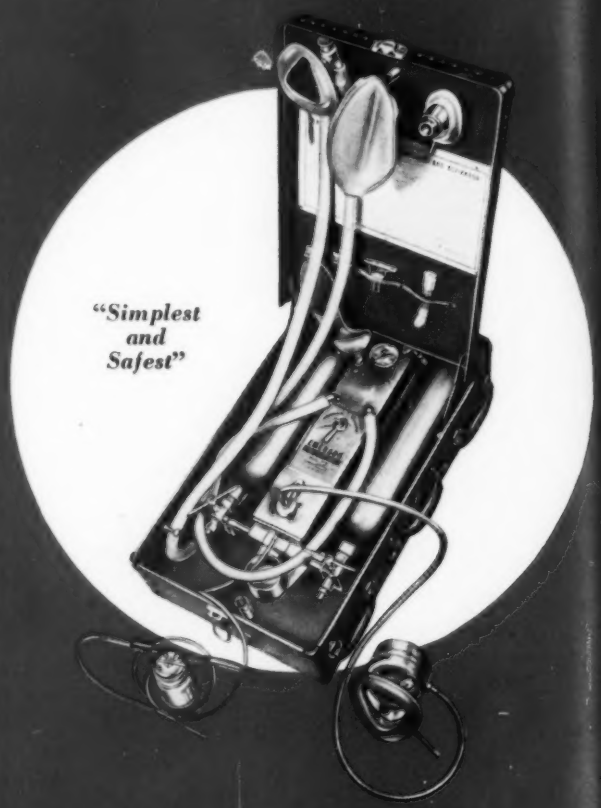
2. Safety The pressures are effective, yet have never harmed a lung, not even a baby's. They are approved by the American Medical Association — and are not adjustable. ★ More oxygen is brought to the lungs than by manual artificial respiration, yet there is no bodily pressure to endanger an injured or burned person. ★ The Emerson Resuscitator mounted in the carrying case has separate passageways throughout the mechanism for inhaled oxygen and exhaled gases (a feature covered by U. S. Patent No. 2268172). ★ The case sets flat and won't topple, even if an extension hose is tugged.

3. Efficiency Is it important that your Emerson runs longer on a given quantity of oxygen? Far out on a beach or at some other remote place this factor may save a life.

4. Quality Workmanship and materials throughout are superlative, guaranteed by the factory (for two years) and checked by our representatives throughout the United States and Canada.

5. Adaptability Standard models can be adapted for *dual, triple,* or *quadruple* use. ★ Extension hoses can be used to give full protection 400 feet or more away from the parent machine, complete with *aspirator* (as well as *resuscitator* and *inhalator* functions). ★ Large cylinders can be hooked up, for long cases, by using a flexible connector. ★ Small cylinders can be changed with one hand by a man who is holding the mask on a patient's face with the other.

EMERSON Resuscitators are TRUSTED IN EMERGENCIES



"Simplest and Safest"

Such Advantages Mount Up

They Can Help You Save Lives

Write for complete details and Medical References

J. H. EMERSON CO

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PAGE

(S) MISSING

. . . *avoid* WINTER PARALYSIS

Winter's sleet and snow will soon be driving people indoors behind insulated walls and sealed storm windows. Your alarm siren must not only penetrate these obstacles but also compete with favorite radio programs.

Now more than ever your community requires a loud dependable alarm as the nerve center of your protection system. Be sure your signal is dependable. Test it daily as a time signal. Check now to be sure your signal is adequate for the winter season.

Now is the time to replace the old, worn-out signal with a new all-powerful, dependable Federal Siren, precision-built in weather-proof housing and durably constructed for extra long life. Federal Vertical Sirens are built with motors especially designed for alarm service. They are exceptional in pick-up, tone power and general performance. Don't risk lives with an inadequate alarm when a moderate expenditure will replace it with a dependable world-renowned Federal Vertical Siren alarm system. A variety of standard models is available. Write for literature.

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FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

CONTENTS

Vol 103 — October, 1950 — No. 10

	Page
With the Editor By Fred Shepperd	811
New York and Westchester Fire Forces Agree on Mutual Aid By Roi B. Woolley	812
Civil Defense Stressed at I. A. F. C. Conference	817
Fire Service Ladders and Their Use—Part VI By Roi B. Woolley	821
Nashville Firemen Control Costly Fire Under Handicaps A Staff Report	824
Short Cuts and Gadgets	836
False Alarms	837
The Watch Desk By Roi B. Woolley	846
Questions and Answers	849
The Round Table Fire Protection of Airports	852
World-Wide Fire News	856
What's Burning?	860
News of the Manufacturers	864
Convention Dates	869

FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

Sprint—or Marathon?

THE United States must brace itself for "a long, hard pull" said Leon Keyserling, President Truman's chief economic advisor. *"We're not in a sprint,"* he stressed, *"we're in a marathon."*

● Preparedness against fire is as important to the nation's economic and political being as preparedness against enemy action. Fire is the 'enemy' that is always with us; temporary and makeshift defense measures can never hope to control and subjugate it, any more than "temporary defense" will long ward off enemy aggression.

● That is why forethoughtful fire protection and fire prevention engineers are taking the *"marathon"* rather than the *"sprint"* viewpoint of this whole problem of fire defense.

● That is why they are looking to FIRE ENGINEERING, which has weathered many wars, many economic and political surges and recessions, to keep them posted on what's what and who's who—and where, in these hectic days.

● The 77th Annual Convention of the IAFC just concluded in San Francisco, marks another milestone in the great history of the nation's fire service—and of FIRE ENGINEERING, *"The Journal of the Fire Protection Profession since 1877."* We congratulate the Association on its achievements and wish its officers and members a "marathon" of forward progress.

The Publishers

FIRE ENGINEERING

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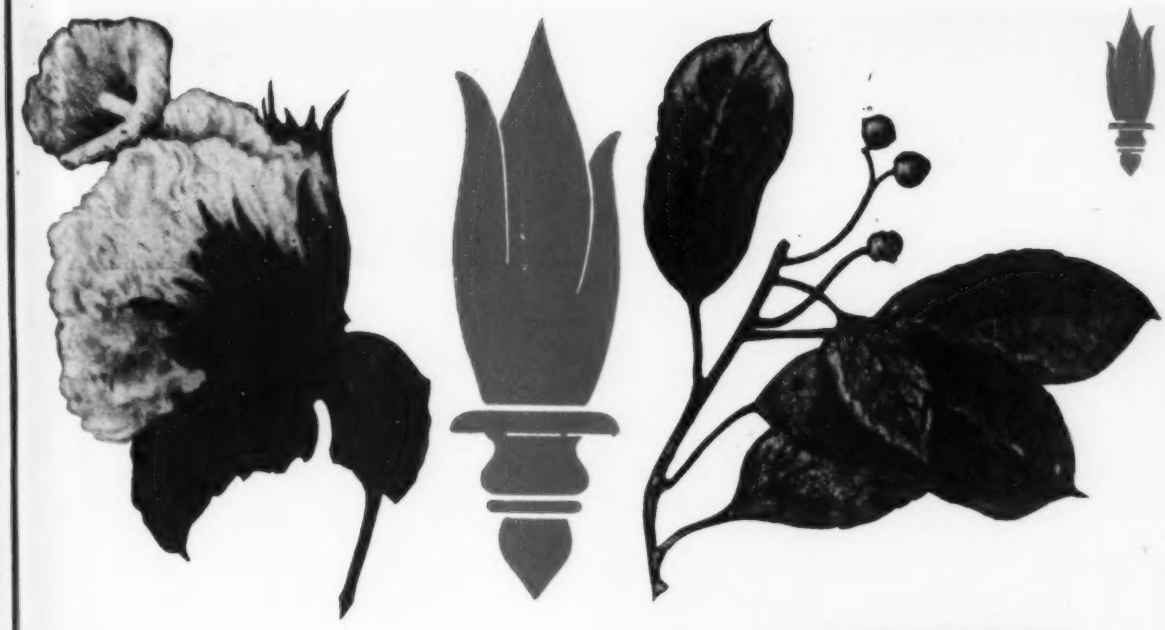
"Specialized Leadership"



A FLOWER + TREE SAP MAKES FIRE HOSE

COTTON, the wool around the seeds of the blossom, and LATEX, the sap of the rubber tree, are these raw materials. Each is processed through about a dozen steps of development before becoming hose. All this processing combined with experienced design, commonly known as "KNOW HOW" produces what is known as a NATURAL hose for a given service; i.e., well balanced life, strength, flexibility, weight and performance. This is why it is very wise to obtain fire hose by "BRANDS," of long market standing, rather than writing specifications or adopting those of others. These latter most generally stress special characteristics as thought to be important, but which really spoil the product. When you are buying a watch, would you specify either the hair spring, balance wheel, main spring or all of them??? Well, fire hose is very much the same proposition but not appreciated

• KEYSTONE •

FULL CABLED FULL TWILL WOVEN GENUINE WAX AND PARA GUM TREATED HEAVY DUTY FIRE HOSE

FABRIC FIRE HOSE CO.

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Here — at the actual scene of the fire — there can be no room for error. Every piece of equipment must be capable of meeting the exhausting task ahead.
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Let Ward LaFrance help you equip your community with dependable fire-fighting equipment. Write today, or send for illustrated bulletins.

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RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER

No extra charge for 100% more strength in coupling area

B.F.Goodrich end protection adds years to hose life

THE coupling area in ordinary fire hose suffers from four functions of hose service — coiling, coupling, pressure and making connections. "End protection", a B. F. Goodrich patented improvement, protects hose against damage from these necessary services by adding 100% more strength to the coupling area:

Less damage from coiling — Tube cracks in ordinary hose are often caused by coiling the hose. To reinforce the tube, B. F. Goodrich developed end protection — an extra ply of hard woven cords extending 12" from the coupling. Prevents kinking at the coupling when hose is coiled.

Less damage from coupling — When a hose is coupled, the "bite" of the expansion ring can cut or weaken ordinary hose. B. F. Goodrich end protection acts as an extra cushion of cord. Absorbs the thrust of the ring, protecting the tube.

Less damage from pressure — Flexing of the hose under pulsating water pressure tends to pull tube away from coupling. End protection reinforces the coupling area, helps hose stand this treatment without weakening.

Less damage from making connections — It's almost impossible to do much coupling and uncoupling to hydrant or truck without twisting hose near the coupling. The reinforcement of end protection protects hose tube from breaks that might result from this twisting.

Because of end protection not one single length of B. F. Goodrich fire hose has ever failed in the coupling area. Yet it costs you not one penny extra.

There's a B. F. Goodrich fire hose distributor near you, ready to bring this and other BFG hose improvements to your department. Give him a call, or write: *The B. F. Goodrich Company, Industrial and General Products Division, Akron, Ohio.*

The bright red end identifies B. F. Goodrich fire hose with exclusive end protection.

Fire Hose
BY
B.F.Goodrich
RUBBER FOR INDUSTRY

can your present equipment prevent tragic loss of life and property?

IT CAN, if your town is one of the thousands equipped with John Bean High-Pressure Fog Fire Fighters.

Here's why: *This amazing apparatus carries its own water supply and allows firemen to go into action immediately without wasting time laying hose.*

In action, the patented Bean Fog Gun, easily operated by two men, breaks the water into billions of tiny particles that smother the fire with a blanket of fog. Bean High-Pressure Fog practically eliminates water damage because it outabsorbs low-pressure water 10 to 1.

Assure your town of maximum protection with minimum fire loss. Write today for a fully illustrated booklet on modern, John Bean fire protection.

Sensational John Bean Features!

- **Goes into action immediately because it carries its own water supply**
- **Clears way for close-up, inside work with protective screen of flame-smothering High-Pressure Fog**
- **Puts fires out faster because Bean High-Pressure Fog outabsorbs low-pressure water 10 to 1**
- **Practically eliminates water damage by extinguishing fires quickly and efficiently**

PROTECT your town with this efficient John Bean High-Pressure Fog Fire Fighter. 435-gal. tank—60 G.P.M. at 850-lb. pressure —2 hose lines, each 250 ft.—choice of 2- to 4-ton chassis.

BEAN *original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

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INDIAN FIRE PUMPS NOW!

Protect Property — Guard Lives

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INDIAN FIRE PUMPS are first line of defense against incendiary attack. Air raid wardens, fire departments, war plants, forest rangers and private citizens need plenty of these portable, clear water extinguishers.

Nozzle is adjustable for powerful, straight stream or fine spray. Big, rust proof tank holds 5 gals. of water. Civilian defense organizations were equipped with thousands of **INDIAN FIRE PUMPS** during the last war. Don't delay! Send in your order NOW. We will ship immediately.

Air raid wardens of New York City, each equipped with an **INDIAN FIRE PUMP**, parade during World War II

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FOR DESCRIPTIVE INFORMATION ON THESE FAMOUS FIRE EXTINGUISHERS WRITE TO

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RESPIRATORY SAFETY by M·S·A

Approved by the U. S. Bureau of Mines

M-S-A Demand Mask

A cylinder-type breathing apparatus employing either oxygen or compressed air for ½-hour respiratory protection

This simple, easy to use Demand Mask supplies oxygen (or air) for the fireman in dangerous atmospheres according to his breathing demands, making him independent of outside air. Utilizing the M.S.A. Demand Regulator, the Mask's operation is automatic—a turn of a valve to start is all that is required. Non-fogging facepiece, comfortable light-metal carrying frame and padded leather harness are special, appreciated features. *Write for Bulletin B-16.*

M-S-A All-Service® Gas Mask

Protects against poisonous gases, vapors and smokes, wherever oxygen in air is sufficient for safety

The famous M.S.A. All-Service Gas Mask is known and used throughout America. Light, easy to put on and wear, this all-around Mask protects against every commonly-encountered breathing hazard (including carbon monoxide) except oxygen deficiency. The "All-Vision" Facepiece again made of flexible natural rubber affords wide-angle seeing with comfortable seal on the face—long-lasting canisters are quickly replaceable. *Send for Bulletin EA-8.*

FOR EVERY FIREFIGHTING HAZARD

Time-proved in service on the job!

THE UNIQUE

M-S-A Chemox®

SELF-GENERATING

NOW . . . with Cleartone Speaking Diaphragm!

OXYGEN BREATHING APPARATUS

CHEMOX is the only breathing apparatus with a replaceable canister that generates oxygen as the wearer breathes. Just 13½ lbs. complete, CHEMOX delivers a plentiful supply of oxygen for a minimum of 45 minutes under hard firefighting exertion—affording dependable protection in unventilated areas where smoke, gases, and oxygen deficiency make air unbreathable. *Do you have our Chemox Bulletin B-14?*

CHEMOX is ready always for instant use. Canister is replaceable quickly, renewing service period at scene of action without delay.

New M. S. A. Cleartone Speaking Diaphragm now permits clear speech between Chemox wearers—without wires or batteries!

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LATEST IMPROVED MODEL, 4-WAY
1"—1½"—2½"

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FOGNOZL offers the only *true* solid straight stream.

Thousands of FOGNOZLS are in use, providing greatest efficiency in fighting many types of stubborn fires:

Paint, Lacquer and Varnish Fires • Gasoline and Fuel Fires Grass and Brush Fires • Oil and Grease Fires • Tank and Vat Fires • Chemical Fires • Lumber Pile and Building Fires.

FOGNOZL offers positive action at all times, under any pressure. Quick, triple action—from full shut-off to fog with only 1/3 turn—from fog to straight stream with only 1/3 turn.

Write, wire or phone today for complete information about highly efficient Griswold FOGNOZL.

TRADE FOGNOZL MARK

FOGNOZL APPLICATORS

FOGNOZL Applicators conquer fires in spots impossible to reach effectively with other equipment.

FOGNOZL Extension Applicators give longer "reach" and maximum protection to personnel.

When ordering FOGNOZL be sure to specify an Applicator with it.

FOG NOZZLE INTERNATIONAL

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Division of AKRON BRASS MFG. COMPANY, INC., Los Angeles, Calif.
SALES OFFICE—WOOSTER, OHIO

"Even BETTER than we Expected!"

says Chief R. J. Lindsay of his New

MACK Aerial LADDER

Mack 65-foot aerial ladder truck recently delivered to Union Fire Association of Lower Merion, Bala-Cynwyd, Pa.

"You can be sure we did a lot of looking before we ordered our new aerial ladder truck. We wanted an all-around combination of performance, strength and dependability -- and that's why our choice finally fell to Mack.

But when we took delivery of our new Mack aerial, we found that it performs even better than we expected! The ladder can be extended or retracted smoothly and quickly at any angle. It is the strongest ladder I have ever seen. And it is so simple to operate and so jam-proof, our men have learned to operate it with practically no effort.

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Sincerely,

Chief R. J. Lindsay

Chief R. J. Lindsay

UNION FIRE ASSOCIATION OF LOWER MERION, BALA-CYNWYD, PA.

Chief Lindsay's experience equals the findings of the other chiefs who have put Mack all-steel, all-hydraulic aerials into service. Before ordering your next aerial ladder truck, be sure to learn why Mack aerials out-perform, outlast them all.

Be Performance-Wise

Modernize with

Mack

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Outlasts Them All

Factory branches and distributors for service and parts in all principal cities. In Canada: Mack Trucks of Canada, Ltd.

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Safety

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The greatest name today in three-section aluminum fire ladders for service trucks is Duo-Safety's Series 525-A. This great ladder, with Duo-Safety's exclusive Tubular Principle, because of its short length in the banked position, eliminates excessive over-hanging of fire ladder equipment. The minimum of banking height is required and the maximum amount of climbing space is provided. And . . . all Duo-Safety aluminum three section ladders . . . both Tubular and Channel Rail design . . . are equipped with one rope hoist . . . both ladder flys will extend simultaneously by pulling one rope. Plus all this . . . the safety, lightness, strength of aluminum, and the many structural advantages found only in Duo-Safety construction make Series 525-A the ladder most fire chiefs demand. Other ladders in this series include: 500-A, Two Section Extension; 550-A, Wall Ladder; 575-A, Roof Ladder, and 585-A, Folding Ladder. All are available in a variety of sizes. Write today for free file catalog.

with exclusive
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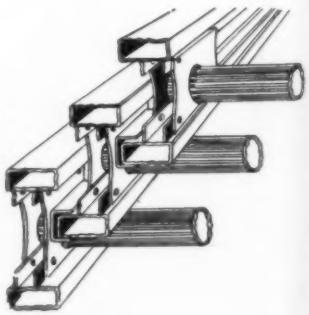
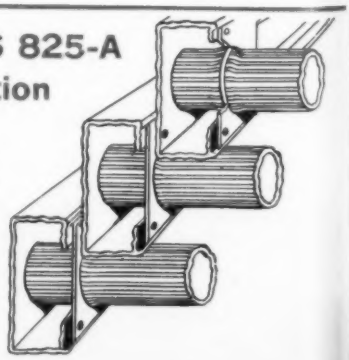


SERIES 725-A and SERIES 825-A
Channel Rail Construction

Now . . . Duo-Safety offers two Channel Rail construction series . . . the 700 Series for pumper use . . . and the 800 Series, featuring the same construction design with heavier rails. The 800 Series provides an in-between ladder both in performance and price in Duo-Safety's famous line of 500 and 700 Series Fire Ladders. All are available in two and three section extensions and in roof and wall ladders, and in a variety of sizes.



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811 Ninth Street . . . Oshkosh . . . Wisconsin

See the Life-Saving Equipment Every Community Is Talking About . . . *and Operate It Yourself!*

WRITE OR WIRE FOR A COMPLETE DEMONSTRATION IN YOUR DEPARTMENT OF

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the instrument that provides

MAXIMUM ASSURANCE OF SUCCESS IN TREATING ALL ASPHYXIATION CASES

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THE E&J IS AUTOMATIC *in every possible way*

AUTOMATICALLY *produces exact positive and negative pressures absolutely safe and correct for adult or tiny infant.*

AUTOMATICALLY *adjusts volume to any lung size.*

AUTOMATICALLY *signals if upper air passages are obstructed.*

AUTOMATICALLY *signals when natural breathing is resumed.*

THERE IS NO CHANCE FOR CONFUSION OR DOUBT

If your budget is s-t-r-e-t-c-h-e-d . . .

YOUR COMMUNITY WILL HELP YOU GET NEEDED E&J RESUSCITATORS *right now!*

By an outstanding feature article, a leading national magazine focused the attention of literally millions of responsible citizens on modern Resuscitators, many ways they save lives and the need for every community to be adequately equipped.

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Your community is depending on your preparedness, so don't wait too long before selecting Republic Fire Hose.

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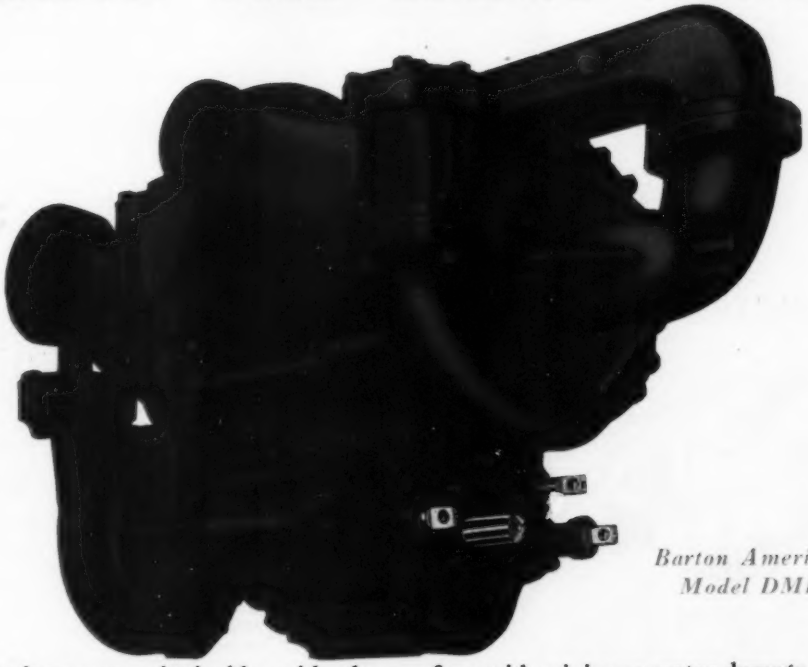
Large or Small

NOW YOU CAN FIGHT ANY SIZE FIRE WITH EFFICIENCY

USING THE SAME PUMP



Barton American Model DMB

Selective performance, obtainable with the Barton American DMB four stage, gives you the wide range of stream selections to fight all types of fires. From *one* pump you can use 1½" or 2½" lines at conventional Underwriters' capacities and pressures plus 850 pounds fog gun pressures for handling small fires with minimum water damage. This wide range of streams is obtained by merely shifting gears and without excessive engine speeds. The Model DMB is the universally accepted DMA Duplex Multistage plus the addition of two high pressure stages for fog gun work.

ONLY THE BARTON AMERICAN MODEL DMB HAS ALL THESE EXCLUSIVE FEATURES:

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IN CANADA: C. E. HICKEY & SONS, LTD., HAMILTON, ONT.

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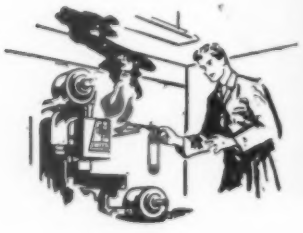
Safe-T-meter

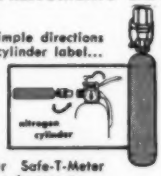
THE SENSATIONAL NEW LINE OF HAND PORTABLE, DRY CHEMICAL FIRE EXTINGUISHERS THAT OFFERS POSITIVE ON-THE-SPOT FIRE PROTECTION!



The exclusive Safe-T-Meter gauge tells you at a glance it's **Ready To Go!**

NEW RECHARGE CYLINDER MAKES PRESSURIZING EASY!

Just follow simple directions on recharge cylinder label... no tools or technical knowledge is needed. When cylinder is expended return to your Safe-T-Meter dealer for replacement.



Write also for information concerning the complete line of Safety First Industrial Dry Chemical Extinguishers.

Ranging in size from 5 lbs. to 30 lbs., there is an extinguisher to fit your every need!

SAFE-T-METER FEATURES!

B-2, C-2 Underwriters' Rating, Pressure Gauge Tells Status Of Extinguisher At A Glance, Can Be Used Intermittently, On-The-Spot Refilling, No Tools Required

Now, for the first time, Safe-T-Meter, Safety First's revolutionary, new visual gauge fire extinguisher offers positive on-the-spot protection! Its easy-to-read dial tells its status at a glance . . . eliminates the danger of an empty extinguisher when fire strikes! Available in 2½ and 4 lb. models, Safe-T-Meter weighs so little and is so easy to operate that even a child can use it. Economical, too, because Safe-T-Meter's sturdy, precision built construction lasts a lifetime . . . its highly effective Safety First dry chemical is inexpensive to replace. Write now for complete information!

SAFETY FIRST COMPANY

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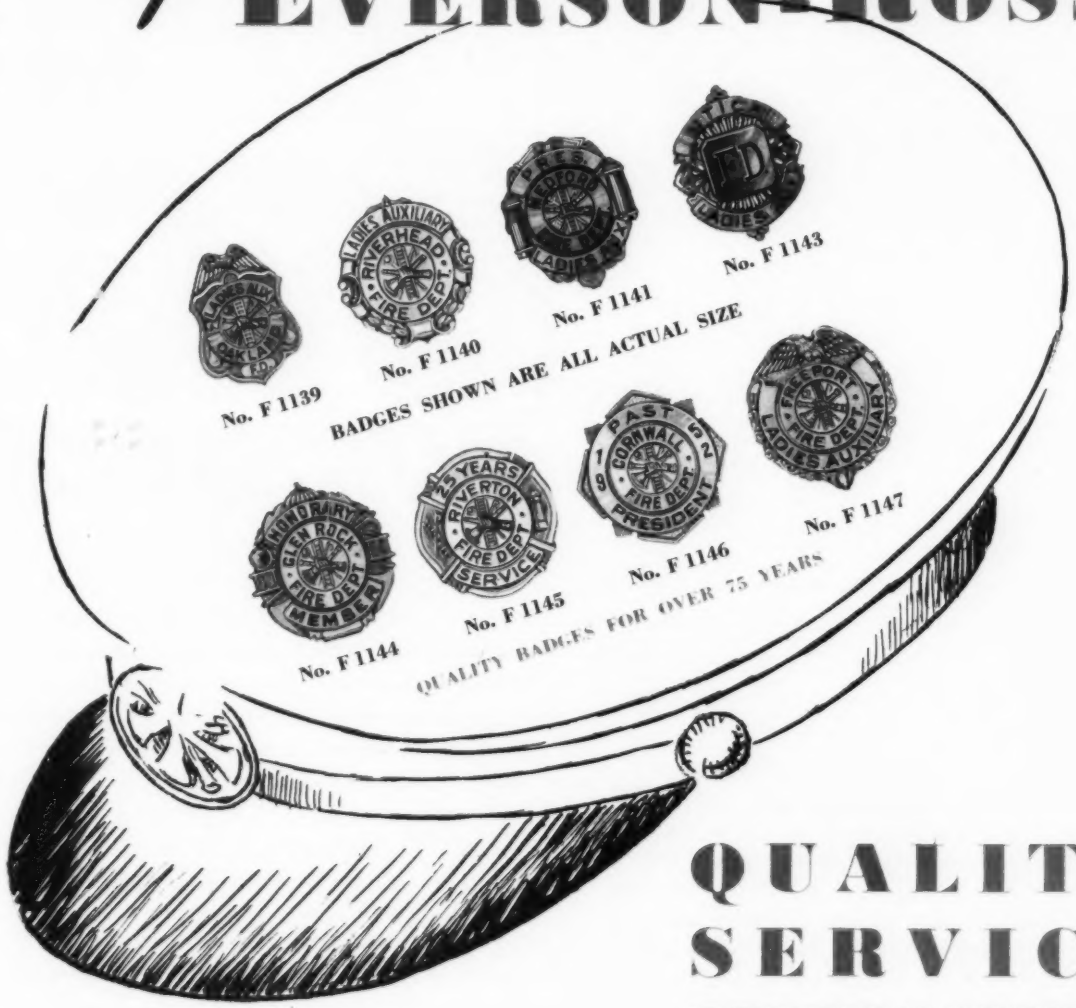

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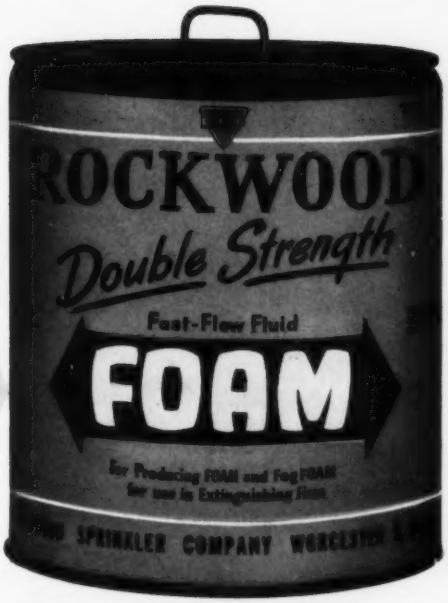

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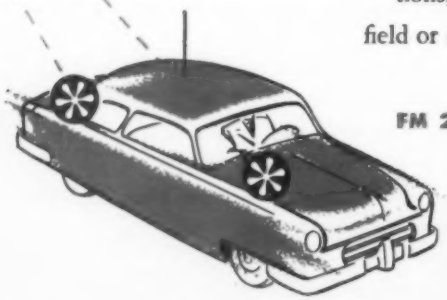

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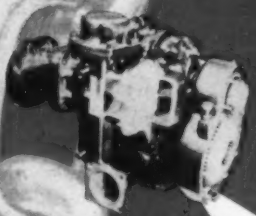

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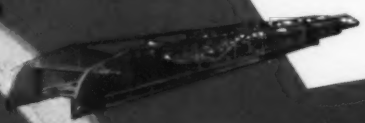

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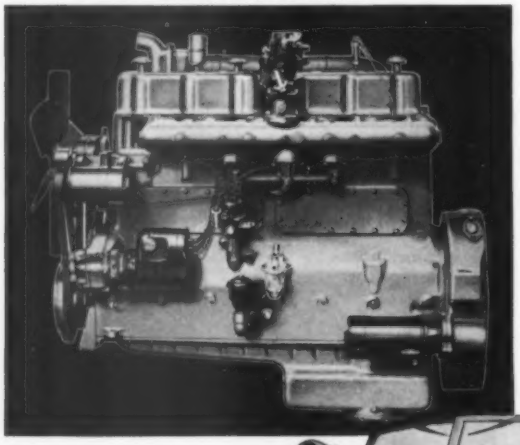

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Occupies only 7" x 9" floor space! . . . Lighter weight — only 42 lbs. when ready for use! . . . Alfco Dry Chemical is nontoxic, noncorrosive, nonconductor of electricity and will not freeze! Underwriters' ratings: B-1; C-1.

Shipping weight — 45 lbs.

Write us for literature and for demonstration.

Running Board Bracket holds unit securely. Note quick acting clamp for speedy removal, with ample room for hand grip.

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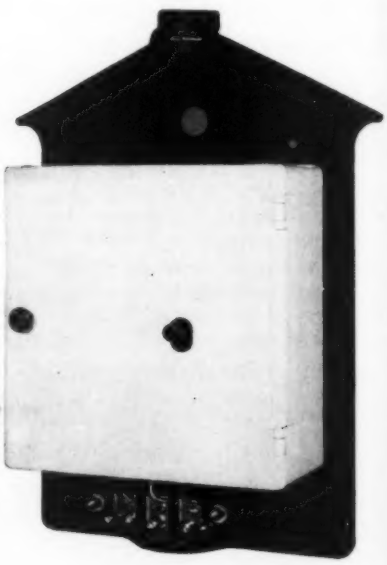
. . . now in production

New Standard Gamewell Fire Alarm Box, Three-Fold Type. The reflecting "Fire" signs on the boxes contribute to speed in sending alarms.

At right is shown the inner square case mounted on back plate. Ample wiring space is provided at top and sides of inner square case.



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OCTOBER, 1950

FIRE ENGINEERING

VOL. 103, NO. 10

With the Editor

Sirens Silenced

Last month, the New York Fire Department ordered the silencing of all sirens on its apparatus. At the same time such warning signals on police and other emergency cars, including ambulances, were stilled.

This action, we understand, was not the idea of the officials of the fire department; it is said they were not even consulted before the order was promulgated by the local office of civil defense. The excuse is the old one that such sirens can be mistaken by the public for air raid alarms.

Here, it seems to us, is another example of the befuddled thinking and snap judgment so prevalent during World War II days of the OCD in Washington when, over the protests of representatives of the nation's fire service, that agency ruled against the use of sirens on emergency vehicles.

At that time we scored the failure to make a clear-cut explanation of the no-siren order of the Eastern Defense Command which resulted in confusion throughout the New England area, where the opinion was held by most authorities that "fire apparatus sirens do not simulate the sound of air raid warning signals."

It took many months of serious and, in some respects, tragic delay in the response of fire apparatus, forced to depend solely upon bells or makeshift signals, before OCD revoked the regulation. Only after a fire lieutenant was killed in Washington, D. C., did that city decide to restore sirens; only after many other cities witnessed a serious increase in accidents to fire apparatus, with consequent reduction in serviceable equipment, and in operating fire force, did they likewise take action.

Notwithstanding the fact that this regrettable World War II record was available to all civil defense officials who were interested enough to study the subject before taking such drastic action, the experience of the past has been ignored, in New York at least.

Two days after that order went into effect, records of response of midtown Manhattan companies were showing alarming delays in getting to fires, with apparatus damaged in collisions and men endangered. Police cars and ambulances, likewise, were being seriously delayed.

Meanwhile the repercussions have spread. In Westchester County on New York's north, fire chiefs are torn between cutting off sirens and permitting their use. They have two sets of contradictory regulations to follow. In Yonkers, on the New York borderline, Fire Chief William Garvin has agreed to discontinue sirens when his apparatus is responding to alarms within a certain distance of the New York boundary. Elsewhere they may be sounded. The effect of the New York City no-siren order is felt throughout the State and in New Jersey and beyond.

Not only the emergency services are affected by this decision. Banks and other institutions protected by burglar alarm sirens are hit. One concern that protects over 15,000 big transport trucks with burglar alarm systems, which use sirens, comes within the ruling, notwithstanding the fact that many of the transports protected by this burglar alarm system are hauling vitally needed, high priority freight, essential to defense efforts!

As told elsewhere in this issue, at its San Francisco Conference, the International Association of Fire Chiefs unanimously approved a resolution condemning the discontinuance of sirens on fire apparatus. Other organizations, such as the Division of Safety of the State of New York, charged with statewide mutual aid fire defense, have indicated their displeasure over the ruling.

As a substitute, and a costly one, there's talk New York will try to buy exhaust whistles for its thousands of fire and police vehicles.

During the last War a present member of FIRE ENGINEERING's staff participated in tests to determine the similarity of siren signals on moving vehicles operated at brief intervals as compared with those operated over periods of minutes at stationary locations.

These and other data warrant the belief that there is little danger of the sound of a fire apparatus siren being mistaken for an air raid alarm which, according to regulations, must be of minutes duration, from a permanent location. The public has been, and is thoroughly accustomed to the sound of sirens on emergency vehicles. It associates such sounds with emergency vehicles—and their warnings. It seems poor judgment to discontinue their use at a time when they are more needed than ever. To repeat what we said in August, 1943, *"We believe the use of the siren on apparatus should be permitted without restraint. In fact, its use is imperative as a safeguard to fire apparatus and as a means of maintaining safe, rapid response."*

Fred Shepperd

New York and Westchester Fire Forces Agree on Mutual Aid

New York Fire Department Revitalizes World War II Set-up to Tie in Westchester and Surrounding Counties Fire Services

By ROI B. WOOLLEY

Editor's Note: The author of this account of the mutual aid agreement just reached by the New York Fire Department and Westchester County fire service is now that County's Fire Coordinator—a post he held when the original mutual assistance pact was planned early in World War II. During the war he had charge of national mutual aid planning as Chief of the Coordination Unit, U. S. Office of Civilian Defense in Washington. Many States and Counties have instituted mutual fire defense programs patterned after that originated in Westchester by the Fire Chiefs' Emergency Plan—for four years of which Chief Roi Woolley served as president. The author also is a member of the New York State Fire Advisory Board and has served for five years as Chairman of the Committee on Communications of the International Association of Fire Chiefs.

The editors gratefully acknowledge the assistance of the following members of the New York Fire Department and others in the preparation of this account: Fire Commissioners Frank J. Quayle and Nathan C. Horowitz; Chief of Staff and Operations Frank Murphy; William Hennessey, Assistant Chief of Staff and Operations; Deputy Chief of Staff and Operations, in Charge, Bureau of Fire Alarm Telegraph, Thomas P. O'Brien and his assistants, William Hennessy and Lieutenants Harmatuck and Jordan. Also Lieutenant Frank Sarocco of Chief Murphy's Office, whose personal assistance in maintaining liaison between the County and City fire services has been most helpful; also Battalion Chief Winford Beebe aide to Chief Murphy and Captains Costigan and Flannery of the Headquarter's Staff.

Recognition is also given B. Richter Townsend, Chief, Bureau of Fire Mobilization and Control, Division of Safety, New York State and other members of the Bureau for their cooperation.

AUTHORITIES qualified to speak on the subject of an atomic bomb attack on this nation are generally agreed that the number one target will be New York City with its heavy concentration of population and its wealth and political and economic importance.

What such an attack, under conditions similar to those which levelled Nagasaki and Hiroshima, may mean to the world's largest city, is dramatically told in the story *"Hiroshima, U. S. A."* published in the August 5 issue of Collier's magazine.

In this account, an anemy A bomb burst in the air over the city's lower east side opposite the Brooklyn Navy Yard, practically erasing all life and buildings in an area fifteen blocks long by twenty blocks across, from Canal Street north to Tenth and from Avenue B to Sullivan, where 100,000 people lived.

The area between Thirty-Eight Street and the Battery was left largely rubble. Thousands of fires, fanned by hurricane force winds generated by the blast, dotted the city between the area of Flatbush Avenue and Fulton Street in Brooklyn, to a point north of Grand Central Station (42nd Street), and as far north as Harlem. The Brooklyn Navy Yard and New Jersey docks were set afire.

According to this "report" which, incidentally, is as near scientifically correct as careful research and study of the affects of an A bomb attack on New York City could make it, seven precinct police stations and twenty-two fire stations were demolished by the bomb. All fire alarm boxes, telegraph and telephone circuits from 20th Street to Brooklyn Bridge were knocked out and sixteen telephone exchanges wrecked, putting out 200,000 telephones.

Most of the city's bridges were wrecked or rendered impassible and traffic was tied into a tight knot, blocking all wheeled surface movement south of Forty-Sixth Street. The entrance to Holland Tunnel was blocked. There was frenzied panic among the hundreds of thousands caught in the debacle. Many hours elapsed before any fire apparatus could reach as far south as Twenty-Sixth Street.

The account tells how toiling firemen finally brought the lesser blazes of upper Manhattan and Brooklyn under control. An engine "pool" was set up in Central Park, from which fifty pumpers were located along the north side of the tempest of flames, raising a continuous curtain of water to cool the air and curb the fire storm. At the southern end of Manhattan, twenty more engines were brought through the Battery-Brooklyn Tunnel to push a confining curtain to the north. On the east and west fireboats attacked the flanks of the furious conflagration.

The fire raged for three days, according to the account, consuming hospitals, housing developments and everything combustible, leaving only the dead and the debris behind. Deaths were estimated at 180,000, nobody tried to guess the number of injured.

It is only natural that perhaps the greater percentage of New York's firemen, who read the Collier's story, cannot reconicle themselves, or their de-

Section of Westchester's County Fire Control Center Shown in Action
Looking from entranceway toward the west wall containing large scale maps of upper and lower sections of the County. A dispatcher is shown taking the call, which is relayed to the operator at the Master Control Board (right), while another dispatcher records the message.

partment, to such wholesale destruction as would follow an atom bomb attack on the city. Like professional fire fighters everywhere, they have confidence in their ability to cope with any large scale disaster. However, those who guide the destinies of the world's largest fire forces are not being misled by any false degree of optimism. They are not blind to the potentially destructive power of the atom bomb. They know the hazards of their city and how easily it can become a prey to enemy fire bomb attack and how quickly its citizens can panic in any public emergency. Great as is the department's resources of men, apparatus and other necessary fire control facilities, these top officials are taking every possible step to further bolster those resources and prepare for all possible contingencies: atom or high explosive, or incendiary bomb; guided missile, or whatever form of attack may come.

In this effort they are partly guided by certain experience gained during World War II. It is true New York never suffered enemy attack as did London, and German and Japanese cities, but the department prepared to the hilt to meet such eventualities.

As early as 1939, the fire department under Chief John J. McElligott began to prepare for disasters with the issuance of its first "disaster plan." Three picked members of the department were sent to London in 1940 to study "Blitz" conditions first-hand in that city. Following their return, plans were drawn for strengthening the fire force. Thousands of auxiliary firemen were recruited and trained. Hundreds of pieces of auxiliary fire equipment were readied, together with special apparatus, such as emergency hose carriers, and other rigs. Complete "battle plans" were drawn to meet an air attack.

In March, 1942, the Department issued an official order putting into effect what was termed by the press, the most drastic and revolutionary departure ever attempted from the then seventy-five-old formula of fire apparatus assignments in the city.

This order, issued by Fire Commissioner and Chief, Patrick Walsh, who succeeded Chief McElligott, and Assistant Chief John J. McCarthy, represented three months of planning by the best minds in the fire alarm telegraph and fire fighting bureaus.

It drastically revised the then prevailing telegraph code of transmitting fire department information. It revoked existing orders; broke up companies and re-established response to alarms during the emergency and, for the first time in the department's history, gave radio a serious place in its operational procedures.

Westchester Could "Cover" the Bronx

Even before this drastic order went into effect, the Fire Department set the stage for mutual aid between the city and its neighboring county fire forces. Meetings of officials representing city and county fire services were held, out of which emerged comprehensive plans whereby Westchester County's fire forces would provide up to forty-five pumper companies (with additional equipment, if required) to locate in designated Bronx and Manhattan divisions and battalions; Nassau County units would likewise be available for

WESTCHESTER TO NEW YORK GROUP ASSIGNMENTS—LOCATING & COVERING

Group No.	Community No.	Eng. Co. No.	Location & Company		To Locate & Cover
1	235	2	Pelham Manor	E1	
	235	3	Pelham	Liberty	
	229	9	Mt. Vernon	E1	E91-E5
	252	13	Yonkers	E4	
	230	24	New Rochelle	E5	
2	229	8	Mt. Vernon	E6	
	252	18	Yonkers	E12	
	230	23	New Rochelle	E3	E109-E22
	210	32	Eastchester	Union C. 4	
	208	49	Hastings	Union. 2	
3	229	9	Mt. Vernon	E5	
	252	17	Yonkers	E11	E122-E17
	230	23	New Rochelle	E6	E84-E23
	210	30	Eastchester	Tuckahoe 2	
	222	34	Larchmont	E1	
4	225	57	Two. Mamaroneck	E1	
	224	59	Vil. Mamaroneck	Mamaro. 1	
	208	66	Hastings	Riv. Manor 3	Cov. by E49
	243	56	Scarsdale	E1	
	215	59	Greenville	E1	Cov. by E71
5	224	62	Vil. Mamaroneck	Volunt'r 3	
	224	63	Vil. Mamaroneck	Halsted 4	Cov. by E58
	209	47	Dobbs Ferry	Ogden 1	& 109
	216	50	Harrison	E1	
	211	76	Elmsford	Live Oak	Cov. by H13
6	242	52	Rye	Penings 1	
	251	66	White Plains	E2	
	246	79	Tarrytown	Hope	
	212	73	Fairview	E1	Cov. by H15
	232	74	No. White Plains	E1	
7	239	61	Porchester	Mellor 2	
	248	81	Valhalla	Indepen't 1	
	251	67	White Plains	E3	E54-E67/E54
	231	86	No. Tarrytown	Union 2	Cov. by E55
	245	80	Tarrytown	Riverside 4	
8	234	131	Peekskill	Columbian 1	Cov. by E127
	239	64	Porchester	Washing'n 4	Cov. by E. Port.
	246	78	Tarrytown	Washing'n 2	Cov. by E83
	233	97	Ossining	Cantract	
	208	119	Croton	Washing'n 2	
9	221	115	Katonah	E1	
	247	89	Thornwood	E1	Cov. by H14
	205	94	Briarcliff	E1	
	233	101	Ossining	Independ't	
	228	106	Mt. Kisco	Independ't 2	

This simple card shows in the left-hand column, the nine "group" numbers; next column gives the "Community Numbers," indicating Westchester cities, towns and villages; next column, the "County Numbers" or "conversion numbers" assigned to the respective county pumpers. The fourth column names the Westchester communities from which aid is dispatched, and the next column lists the local name and/or number of the pumper or company responding. The final column designates those units scheduled to "cover" or actually "locate" in another company's quarters. It will be noted that some "Hose" units instead of pumpers are used to "cover." This is where hydrant pressures are normally sufficient to make pumpers unnecessary. These responses contemplate the use of pumpers of only 500 GPM or larger.

Brooklyn and Queens. It was planned for certain counties in New Jersey to dispatch aid through tunnels and via ferry-boats and bridge to different Boroughs.

In return, the program envisaged New York City sending apparatus and men into these neighboring areas, also in groups, as occasion required. The arrrangement was wholly reciprocal and the New York City Department was prepared to speed assistance without obligation anywhere it might be needed in the metropolitan area, regardless of whether it was aiding volunteer or paid fire departments.

Before the final plan was adopted and promulgated, many meetings were held at which all the details of the arrangement were ironed out. Among the perplexing problems that received consideration were those of liability compensation for firemen operating outside their own political boundaries; the matter of standardization of hose threads, and of securing adapters (New York City threads vary from the National Standard); the need of inventories of equipment; determination of the routes to be taken by responding forces in and out of the city; placement of guides to see that these forces reach their destination. Also of authority and commands, and of the procedure for calling for help and the methods and channels of communication to be employed—to name just a few.

The county fire departments were faced with problems of their own. They had plenty of equipment and manpower, but their respective county fire services comprised for the most part volunteers and there was little or no over-all centralized control and direction with the possible exception of Westchester, which alone of all the county set-ups had in operation a County Fire Control Center.

Nassau with its almost solid volunteer companies, nearly 200 in number, and Westchester with nearly 160 volunteer companies and approximately forty-five paid companies were faced with the problem of combining their forces into homogeneous bodies, ready to operate as single departments. This was tantamount to asking the volunteers to relinquish their "sovereign powers" and those who know volunteer fire organizations, will understand the problem this presented. The task was made worse by the need of substituting numbers for names of communities and fire companies in the counties. Efficient communications did not permit the use of names of cities, towns and villages and of volunteer fire company units, such as "Hope Hose" or "Liberty Engine No. 3." It was necessary for these volunteers to submerge their traditional background and become merely Engine 38 or 511, in Community 222 or 11. But it is to the credit of county volunteers and professionals that the substitutions and conversions were accepted without objection, once the need was manifest.

Large Capacity Pumpers Required

There were other details which called for some sacrifice by county companies in order to effectuate the city-county pact. Not all of the volunteer companies possessed equipment considered adequate or suitable for inclusion in the forces that would be called upon to respond into New York. There was no wisdom in dispatching a 200 GPM pumper on such a mission, which called for units having the largest possible pumping capacities. Yet these smaller units were necessary to the plan. Therefore, in Westchester, at least, they were asked to cover-in to protect county territory that would be weakened by the removal of other forces into New York. It was further necessary to restrict the response of some county companies in order to protect critical installations within their own districts. This called for countywide re-shuffling of apparatus.

Although not requested by New York City authorities, in order to make the mutual aid pact as binding as possible, the heads of Westchester community governments and fire chiefs were requested to give their agreement to the mutual aid plan in writing. It was a credit to the program that this endorsement was made without any objection.

By the end of April, 1942, all details had been ironed out; the pact was approved and Westchester's County Fire Control Center was in operation, manned twenty-four hours a day by experienced dispatchers. This Center became the focal point for the operation of the mutual aid plan, the receipt and transmittal of all communications, and dispatching of all Westchester apparatus and equipment. It has continued to function ever since.

As time passed and the county's fire defense set-up was tested in various 'alerts' called by the local civilian defense, some improvements were made in the operational procedures of the mutual aid plan at the county level.

These had to do with such things as the receipt and handling of messages, the verification of mutual aid requests by call-back and the recording of messages and movements of fire forces.

Reporting in and Out Essential in County Control

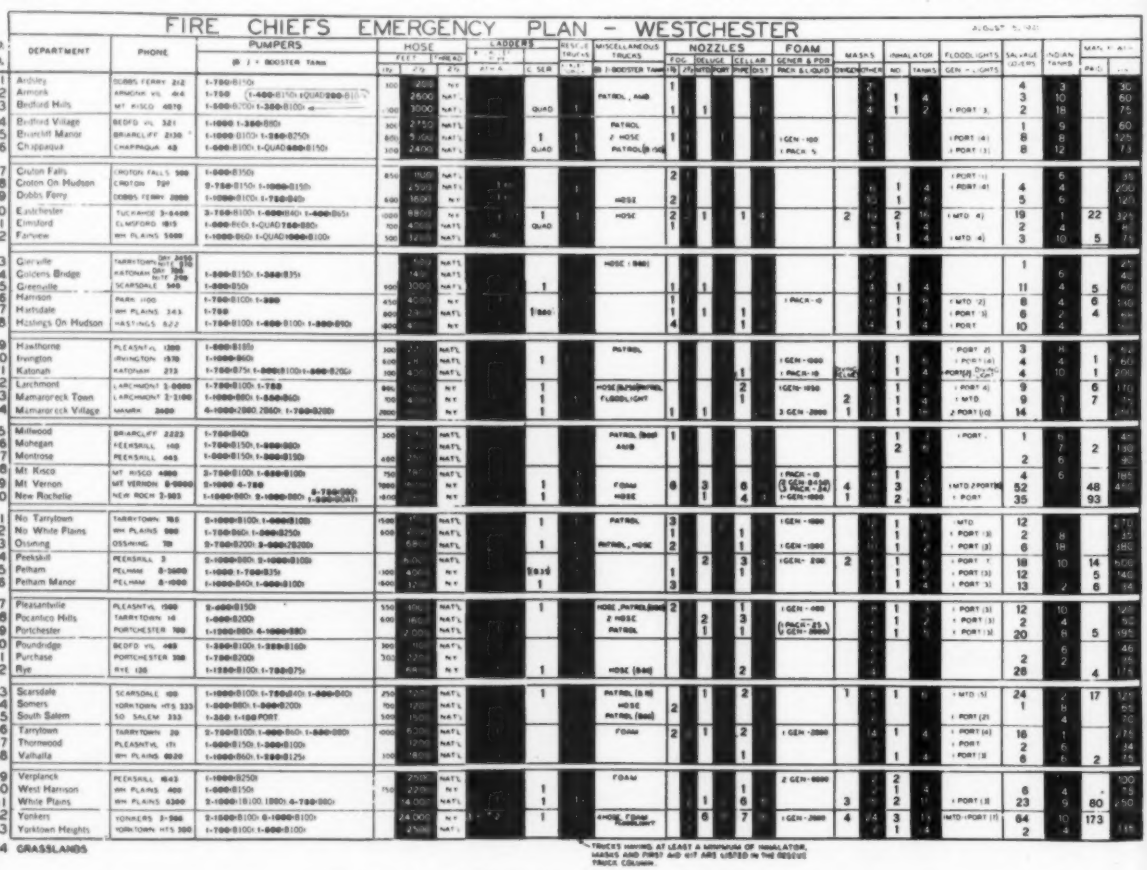
One of the most important factors, essential to efficient mutual aid operations, is the reporting in and out of responding companies and units. A fire control center is of little good, and mutual aid cannot hope to function, unless all parties to the agreement cooperate to enable the fire dispatchers and controllers to know where they are at all times. This is mere routine to the average paid fire department, but it is difficult for the volunteer outfits operating under less rigid control and discipline to do this.

The Fire Chiefs' Emergency Plan of Westchester, which was charged through its Fire Coordinator and deputies, with the working out of these and other operational details of the City-County agreement issued to all its members, which included all fire companies and departments in the county, a series of bulletins, which answered in detail all major and minor questions concerning the mutual aid program. These included the functions and operations of the County Fire Control Center, duties of the Coordinator and other officers in charge, the methods of handling messages and response procedures, the liability coverage for men and apparatus operating outside their own political subdivisions, and the conversion tables, giving the Westchester community and fire apparatus designations. These bulletins explained to county forces the need of adapters, gave suggestions for making them. Suggestions concerning the number and kind of personnel to respond with apparatus into New York were also prepared. And of considerable importance, all fire departments were given complete detailed inventories of apparatus equipment and personnel.

Still another detail was the preparation of a bulletin on the procedure to be followed in making response. Companies responding to New York were designated certain routes which were decided upon after consultation with the County Parkway Police and State Police and New York City officials. Cerain routes were to be wholly, or partially, held open for the movement of fire and emergency apparatus. Maps were provided showing the location of all fire stations and their relation to the predetermined travel routes. In addition, the locations at which guides would be picked up were indicated. Nothing was left to chance to insure some county forces getting into the city, even though some roads and highways might be blocked by swarms of persons fleeing the metropolis. As a final detail, all the railroad overpasses on the New York, New Haven and Hartford, and the New York Central Railroads, traversing Westchester County were measured, as were apparatus units designated to respond to New York on the mutual aid calls, to determine whether or not the equipment could be moved into the metropolis by rail. This necessitated also the locating and checking of railroad loading platforms and arrangements for the placement of the necessary flat cars and other conveyances to transport the fire forces.

Other bulletins described in detail the types of hydrants, high pressure and low pressure, in New York and Fairfield (Conn.) Counties which Westchester forces might be called upon to use. It was found that few firemen outside the city had any knowledge of these hydrants, or of their operation. Likewise, the types of hydrants in use in all Westchester communities were listed and described in the bulletin for the guidance of New York's fire fighters.

As a final step, the Emergency Plan worked out a response guide for the County Control Center and County officials. This showed how the movement of each piece of apparatus out of the county affected the over-all fire defense situation in the county. When the percentage of fire defense strength in the county dropped to below sixty per cent,


FIRE CHIEFS EMERGENCY PLAN – WESTCHESTER
F.D. NO.
DEPARTMENT
PHONE
PUMPERS
HOSE
LADDERS
RESCUE TRUCKS
MISCELLANEOUS TRUCKS
NOZZLES
FOG
DELUGE
CELLAR PIPE
FOAM
MASKS
INHALATOR
FLOODLIGHTS
SALVAGE COVERS
INDIAN TANKS
MAN POWER
201 Ardsley DOBBS FERRY 212
202 Armonk ARMONK VL 414
203 Bedford Hills MT KISCO 4870
204 Bedford Village BEDFO VL 321
205 Briarcliff Manor BRIARCLIFF 2130
206 Chappaqua CHAPPAQUA 43
207 Croton Falls CROTON FALLS 500
208 Croton On Hudson CROTON 709
209 Dobbs Ferry DOBBS FERRY 2000
210 Eastchester TUCKAHOE 3-6400
211 Elmsford ELMSFORD 1815
212 Fairview WH PLAINS 5000
213 Glenville TARRYTOWN
214 Goldens Bridge KATONAH
215 Greenville SCARSDALE 5600
216 Harrison PARK 1100
217 Hartsdale WH PLAINS 3433
218 Hastings On Hudson HASTINGS 8222
219 Hawthorne PLEASANTVL 1300
220 Irvington IRVINGTON 1570
221 Katonah KATONAH 273
222 Larchmont LARCHMONT 3-0900
223 Mamaroneck Town LARCHMONT 3-2100
224 Mamaroneck Village MAMK 2600
225 Millwood BRIARCLIFF 2223
226 Mohegan PEEKSKILL 150
227 Montrose PEEKSKILL 0483
228 Mt Kisco MT KISCO 4080
229 Mt Vernon MT VERNON 0-0900
230 New Rochelle NEW ROCH 3-1212
231 No Tarrytown TARRYTOWN 1160
232 No White Plains WH PLAINS 0900
233 Ossining OSSINING 139
234 Peekskill PEEKSKILL 3
235 Pelham PELHAM 8-3000
236 Pelham Manor PELHAM 8-1000
237 Pleasantville PLEASANTVL 1500
238 Pocantico Hills TARRYTOWN 141
239 Portchester PORTCHESTER 7800
240 Poundridge BEDFO VL 403
241 Purchase PORTCHESTER 398
242 Rye RYE 1200
243 Scarsdale SCARSDALE 4100
244 Somers YORKTOWN HTS 3333
245 South Salem SO SALEM 3333
246 Tarrytown TARRYTOWN 20
247 Thornwood PLEASANTVL 171
248 Valhalla WH PLAINS 8020
249 Verplanck PEEKSKILL 1643
250 West Harrison WH PLAINS 4000
251 White Plains WH PLAINS 6300
252 Yonkers YONKERS 3-5000
253 Yorktown Heights YORKTOWN HTS 3000
254 GRASSLANDS
TRUCKS HAVING AT LEAST A MINIMUM OF INHALATOR, MASKS AND FIRST AID KIT ARE LISTED IN THE RESCUE TRUCK COLUMN.

Westchester's Fire Forces Are Charted for Ready-Reference

Above is a reproduction of the "Inventory Chart" showing the total fire fighting strength of Westchester County's fire service. The data are spaced vertically and horizontally to facilitate locating certain information. Note the "Community Numbers" at extreme left. Since this chart was prepared, a new inventory has been completed. This will be reproduced much like the above. Large scale reproductions of this chart are located in every county fire department and company, as well as neighboring counties in the mutual aid pacts. Smaller reproductions are furnished all holders of the Fire Chiefs' Emergency Plan's disaster manual.

help automatically was invoked from neighboring Putnam County, N. Y., and Fairfield County, Conn.

Such was the general mutual aid plan inaugurated in World War II.

New York's New Mutual Aid Agreement Simple—But Comprehensive

When the present emergency made it necessary for the New York Fire Department to formulate a program of mutual assistance between the city and its surrounding communities, a tentative plan was prepared, known as Chapter 25 of G.O. 1 (General Order One) of 1946, the same being a codification of the Rules and Regulations governing signals, assignments and procedures as established and effective during World War II, predicated on the then existing Civilian Defense and Federal regulations. This proposal was submitted to the initial meeting of the fire department officials charged with the responsibility of drafting the program, and administering it, together with representatives of the State Division of Safety, the State's Office of Civilian Defense, and the Fire Coordinators or Fire Marshals of Westchester, and Nassau Counties.

Although the department adhered closely to the principles and procedures established during World War II, the planners acknowledged that modifications and revisions would be necessary to conform to regulations and conditions which may have changed since the last war, or with new procedures and regulations being set up. Basically, however, the fundamentals of the current mutual aid system are the same as before.

The agreement, headed *"Mutual Aid Between the County of Westchester and the City of New York"* is a simple document, of less than nine typewritten pages. In less than two dozen paragraphs the plan sets forth all the fundamentals of the system. It does not attempt to itemize all details necessary to make the system work. The operational machinery is left pretty much to the counties' and the city fire departments. However, so that its neighbors will know at least the basic procedures, the plan does include particulars of the signals and communications which the New York Fire Department will invoke to put the mutual aid system into operation.

At the outset, the agreement states that the system of mutual aid established is *"for the duration of a public emergency, affecting the Fire Departments of New York City and Westchester County, New York."*

The program establishes the chain of authority for putting the plan to work, and the procedure to be followed, in these words: "Any town or city entering into this agreement, desiring assistance from New York City shall communicate, through their regularly designated County Coordinator, with the fire alarm dispatcher in the Manhattan Fire Alarm Central Station, New York City, giving the location to which such assistance is to respond. The dispatcher will then communicate with the Fire Commissioner (of New York), the Chief of Staff and Operations, the Chief of Department, and the Assistant Chief of Staff and Operations, either of whom will issue the necessary orders causing the response of companies or the assistance required to the location requested. The dispatcher shall advise the coordinator requesting assistance, what action shall be taken, and will thereupon transmit the necessary signals on the alarm circuits as described. . . ."

The agreement then defines the method whereby New York will call for assistance in these words: "Should the Fire Commissioner, Chief of Staff and Operations, Chief of Department, and the Assistant Chief of Staff and Operations of the New York City Fire Department desire assistance from cities or towns outside the city of New York, he shall advise the dispatcher at the Manhattan Central Station as to the number of companies, assistance, and/or equipment required, and to what location or locations they shall respond. The dispatcher shall immediately contact the County Coordinator or the appropriate county from which the assistance will be requested and ask that the number of companies desired be dispatched to the City of New York."

"Assistance" Defined

"Assistance" in the document is defined thus: "The word 'assistance' as used in the preceding paragraphs shall be deemed to mean the requesting and dispatching of fire fighting apparatus with personnel; manpower only; the use of special or specific equipment with assigned personnel, and specially trained personnel, such as a sappers and miners corps.* Specific requests shall be made for the amount and kind of assistance required."

The details of procedure to be followed by coordinators and fire alarm telegraph dispatchers when the provisions of the foregoing are to be involved, the proposal states, *"shall be in accordance with a prearranged plan which will insure the reliability and authenticity of requests for assistance and will also provide a rapid response of apparatus."*

It was recognized that no set operational procedure can be laid down that will meet every requirement, every eventuality. However, the planners are agreed on the wisdom of authenticating and verifying all requests for assistance to avoid the indiscriminate calls for assistance, which so often are made by irresponsible persons or under stress of excitement and panic. In Westchester, over the years, this method of "check and double check" on calls for help has saved many an ill-advised response. The county's Fire Control procedure is to check back on all calls that come, or may appear to come, from other than recognized authorities or not through prescribed channels. Here is where the value of centralized control and dispatching, directed by experienced men, proves itself.

The new mutual aid agreement, like its forerunner, lists all Westchester cities, towns, villages, institutions and districts having fire protection forces that will or may be included in the mutual aid set-up. The lists, as will be noted in the accompanying diagram gives the community number assigned to each fire force."**

Signals Similar to Those in World War II

There is nothing complicated about the system of communications or the signals which the New York Fire Department has established to effectuate the new mutual aid system. These do not vary greatly from the signals in effect during World War II. Of course, behind the special signals established for this "public emergency" there are numerous other changes and revisions that have had to be made in the "machinery" of the department to enable the city's fire forces to meet the particular and peculiar emergencies that may be expected to develop from any enemy action. In short, within the department numerous and, in some instances drastic, changes in response, relocating and other details are already planned, and still others contemplated, of which the mutual aid system is only a single detail.

Calls May Be for Apparatus and/or Manpower

Inasmuch as most of the calls for assistance will be for pumpers, engine companies form the basis of the response. On this score the New York-Westchester agreement is worded as follows: "Engine Companies may be dispatched to cities or towns outside the limits of the City of New York by a special call signal consisting of three parts as follows: (1) The preliminary Signal 14-14; (2) the number of the city or town to which companies are to respond; and (3) the terminal number to indicate which group of companies shall respond."

As previously mentioned, New York will send help to Westchester and that county will send aid to New York, in groups of companies, or units of apparatus. No change has been made in the original mutual assistance plan whereby Westchester is scheduled to dispatch nine groups in the number of five companies or units per group, to New York, and New York will dispatch nine groups in the number of three companies or units to Westchester. It is understood of course, that the number of groups, like the total number of units enumerated in the plan, is not binding, but may be increased or decreased as necessary. When and if aid beyond that included in the agreement is required, the dispatchers will provide it upon receipt of the proper orders.

The group numbers and the designated New York Companies assigned

*The Sappers and Miners Corps was organized in the Fire Department in the year 1909 and has been constantly in existence since that time. It originally consisted of two groups: GROUP NO. 1—Civilian Inspectors of Blasting assigned to the Division of Combustibles and Fire Prevention, and GROUPS 2 and 3—Lieutenants of the Uniformed Force.

In the year 1947 the Sappers and Miners Corps was re-organized. The original name was retained due to the requirements of the Administrative Code. The new set-up is as follows: GROUP NO. 1—Civilian members of the Division of Combustibles and Fire Prevention with titles of Inspectors of Blasting, Junior Chemical Engineers and Electrical Inspectors. GROUPS 2 and 3—Designated Officers and Firemen, in the uniformed force, possessing a specialized technical background of training and experience in Rigging, Shoring, Munitions, Blasting, Dynamiting, Electricity, etc., deemed to be helpful in this Corps, or those members who received specialized training and experience in these categories during their services in the Armed Forces of the U. S. Upon assignment to the Sappers and Miners Corps, Officers and Firemen undergo a training course at the Fire College intended to adapt them so that their services may be utilized for any emergencies requiring men of specialized training.

**The code "200" was given Westchester; numbers below that indicate Nassau County forces, and the "300's" are intended for New Jersey.

to respond to Westchester in accordance with the foregoing are as follows:

WESTCHESTER COUNTY ASSIGNMENTS

Group No.	Engine Companies to Respond		
1	81	43	80*
2	38	90	48
3	88	46	89
4	67*	96	50
5	94	41	59*
6	83	35	47*
7	53*	56*	296**
8	40*	262**	312**
9	44*	8*	260**

*Indicates Manhattan companies.
**Indicates Queens companies. All others are Bronx companies.

As shown, three engine companies are assigned to each group. Groups may be called individually or in combinations of three groups, making it possible to call a total of nine companies on one signal. The group numbers may be made up of any combination of groups, as for example: Terminal 12 would represent 1 and 2; terminal 246 would represent groups 2, 4 and 6; and terminal 489 would represent groups 4, 8 and 9. For example:

Signal 14-14-201-1 is a call for the three engine companies assigned to Group 1 of Westchester County assignments to respond to Ardsley.

Signal 14-14-201-12 is a call for the six engine companies assigned to Groups 1 and 2 of the Westchester assignments to respond to Ardsley.

The agreement sets forth the importance of having responding companies designated for cities, towns and communities outside the New York City limits met by escorts that will direct them to the location or locations to which they have been called. The responding companies are in every case expected to report to the Chief Officer in Command at their objectives for assignment to duty.

This question of reporting for duty, and assignments is important in any mutual aid plan, especially where the fire forces include volunteers as well as professional fire fighters. It is considered essential that this detail be agreed upon, in view of the fact that any large scale disaster, such as an atomic or fire bomb raid, would necessitate the movements of large bodies of men and apparatus and failure to report in to the seat of command, or the "HQ." might prove disastrous. Where dispatching of fire forces is done through a Central Fire Alarm Office, or County Fire Control Center, unless the dispatchers know at all times the disposition of all forces on the fire ground, in reserve and available, they are seriously handicapped.

Aid Will Probably Respond to Rendezvous Points

An important detail of the plan in connection with the above, is the response of out-of-city companies and units to particular locations. In the World War II mutual aid plan, Westchester was expected to locate its forces in the fire houses of certain indicated New York Battalions and Divisions. From these stations they would respond to alarms just as would the original company for which they took over.

With the experience of the last war to guide them, the strategists believe that instead of reporting to individual fire houses and attempting to respond to fire alarms from those locations, it will be more productive if response is made to designated locations, or rendezvous points, leaving New York companies, if they are not out of service or at work on fires, to remain in their districts and respond to alarms from their own station. Knowing their districts better than could any outsider, and also knowing their signal systems and operations, there would be less confusion and delay if the aiding forces are mobilized in locations from which pools they can be re-directed as occasion demands.

This procedure is in line with that followed by British fire forces when they were called upon to meet the German fire bomb attacks. It is expected that ultimately pre-determined rendezvous points for these "pools" will be arranged for. Such locations should have the best possible protection from attack and be equipped with facilities for communications and the comfort of personnel.

Both New York City and Westchester provide in their stipulations that dispatchers (in the case of New York, Borough dispatchers in Boroughs from which companies are called outside the city) shall be required to provide companies to fill out deficient assignments in order to provide the number of companies that have been requested. It is indicated that calls for such companies shall be sent by telephone or other alternate means.

The agreement also outlines the procedures to be used by each party to the understanding in calling for assistance. When New York calls Westchester, the dispatcher in the Manhattan Fire Alarm Central Station shall call, by telephone, the Westchester County Fire Coordinator at the County Fire Control Center, White Plains, N. Y. This Control Center is located at White Plains Fire Department Headquarters. Alternate means of communications are provided.

After reaching the Coordinator, the Manhattan dispatcher shall give the particulars of the required assistance. After the termination of the message, the Coordinator shall call back the Manhattan dispatcher for check and confirmation.

When Westchester requires assistance, the County Fire Coordinator shall call by telephone the dispatcher in the Manhattan Fire Alarm Central Station, giving the particulars of the required assistance. After the termination of the message, the Manhattan dispatcher shall call back the Coordinator at the White Plains telephone numbers as given above for check and confirmation. After the message is confirmed, the Manhattan dispatcher shall advise the department official authorized to approve such request and, after approval, transmit the necessary signals.

Radio to Be Used

The mutual aid agreement provides that when radio facilities are established between the two points, the necessary instructions relating to the use of that communications facility will be promulgated. At this writing, New York is embarking upon one of the most comprehensive programs of radio installation ever contemplated by an American municipal fire department. Westchester also has been assigned radio frequencies and is engaged in making engineering surveys for possible countywide radio for its fire service. This network will be entirely independent of present county police-fire radio communications.

Such is the fundamental arrangement entered into by the city of New York Fire Department and the fire service of the county of Westchester. Similar understandings have been reached with Nassau County, and negotiations are under way to complete the alliance with New Jersey Counties bordering the Hudson River, and even beyond.

This is only part of the story. Before the principals to the comprehensive program will be fully satisfied, both in city and the counties, numerous other details will have to be reviewed. It is not enough to put things down on paper; the plan must be tried out either in part or in its entirety. There must be tests at sufficient intervals to insure that those persons in charge are as near-letter perfect in the execution of their duties as possible. Of course, no disaster runs true to plan or form, and no plan can anticipate all the things that can happen in every kind of disaster. Nevertheless, that is no excuse for not providing the plan, and for preparing to the utmost for all possible eventualities. That is the reasoning that has actuated the officials of the New York Fire Department, and of Westchester County's fire services.

Westchester's Fire Fighting Forces

Westchester County, lying directly north of New York City, extends from the Hudson River on the west to Long Island Sound on the east. It is bounded on the north and northeast by Putnam County, N. Y., and Fairfield County, Conn. Westchester covers an area of 448 square miles, has a population of over 600,000 persons and an assessed valuation of over $6½-billion. Political subdivisions include six cities, twenty-four villages and sixteen towns, unincorporated. There are also several fire districts, or areas not possessing fire departments of their own, which are protected in whole or in part by outside forces.

To guard this population and its vast wealth against fire there are fifty-nine fire departments, of all sizes, not including the fire brigades in the Westchester County Airport, Grasslands (County) Hospital, new Veterans' Hospital, and Fort Slocum (at present deactivated). All-told, there are over 160 volunteer and 48 paid companies.

An inventory just completed shows the following fire force strength:

INVENTORY OF APPARATUS AND EQUIPMENT, WESTCHESTER COUNTY

Manpower

Paid firemen—586 (including paid chauffeurs)
Active volunteer firemen—8,548
Total active firemen—9,142
Qualified in first aid—728

Apparatus

Engines (pumpers) 155 (including usable reserves)
Ladder trucks—44 (not including all reserves)
Aerial ladders—34 (100 ft.; 85 ft.; 75 ft.)
Service ladders—10
Quads—5
Quints—1
Patrols—9 (police-fire-patrols)
Rescue (and emergency)—17
Ambulances (fire department only)—6
Foam trucks—4
Light trucks—1
High pressure fog trucks—2
Auxiliary engine (pumper)—2
Fire Boat (750 gpm)—1

(*Continued on page* 838)

Enjoying California Sunshine at the Home of Jay W. Stevens

Left to right: Chief John H. Alderson, Los Angeles, newly elected president of the I.A.F.C.; Chief Wm. J. Cawker, Topeka, Kan., retiring president; Chief G. R. McAlpine, Oklahoma City, the new third vice-president; Mrs. G. R. McAlpine; Jay W. Stevens, San Francisco, executive secretary, I.A.F.C.; Mrs. Jay W. Stevens, and daughter Pat.

Civil Defense Stressed at I. A. F. C. Conference

Attendance Near Record; Outstanding Display of Exhibits; Grand Rapids Selected for 1951 Meeting

WITH a registration of 1,870, the San Francisco Conference of the International Association of Fire Chiefs, held on September 12-15 fell but a little over 100 short of the record-breaking meeting in New York in 1947, when 2,027 members and guests were registered. The registration at the Miami Conference in 1948 was 1,380, while that at the New Orleans Conference in 1949 was 1,290.

The attendance at the San Francisco Conference was well above the anticipated figure, which imposed quite a serious burden on the various committees who had arranged for entertainment of the guests. For example, it was necessary to run a second sight-seeing cruise around the harbor to take care of those who could not be accommodated on the first trip. Likewise some of the late registrants were disappointed by not being able to secure tickets for some of the other recreational features, where there was a limitation upon the number which could be handled.

Nevertheless, the conference was highly successful, and the local committees under Chief Edward P. Walsh, of San Francisco, deserve great credit for arranging a conference which moved smoothly from the first to the last day.

There was little to be desired on the part of the guests. The weather was cool and invigorating, excellent technical sessions were provided and an outstanding array of exhibits was engineered by the chairman of exhibits, Chief L. C. Canning of Midvale, Utah.

Because of the strained International relations, the technical program was devoted largely to the various factors of civil defense. But there were a sufficient number of other timely topics to make a well-rounded program.

The city of Grand Rapids, Mich., was selected for the 1951 conference.

At the election, Chief John H. Alderson, of Los Angeles, Cal., was advanced to the presidency; Chief Rudolph H. Swanson, Jamestown, N. Y., was advanced to first vice-president, and Chief G. R. McAlpine of Oklahoma City was elected second vice-president.

Ex-Chief Daniel B. Tierney of Arlington, Mass., was reelected secretary-treasurer and Jay W. Stevens was reappointed executive secretary.

Monday, September 11, was devoted to registration of the International members and guests, while the Pacific Coast Inter-Mountain Division held a luncheon meeting at the St. Francis Hotel. The Great Lakes Division held a business meeting Monday afternoon at the Fairmont Hotel.

The opening session of the conference was held at the San Francisco War Memorial Opera House, starting at 10:00 A. M.. Chief William J. Cawker presided. The invocation was given by His Excellency, Most Reverend John J. Mitty, Archibishop of San Francisco.

Chief Edward P. Walsh, the host chief, was introduced, and he in turn presented the members of the San Francisco Board of Fire Commissioners to the gathering. These included Walter A. Leonetti, President; Robert H. Schaefer, Vice-President, and Leo H. Shapiro.

The address of welcome was by Mayor Elmer E. Robinson of San Francisco, and the response by Chief William H. Gardner, Underwriters' Fire Patrol, Kansas City, Mo.

After the president's address and announcements, a very impressive memorial service was held. The memorial address was given by the Rt. Reverend Msgr. M. Guilfoyle, of the Archdiocese of San Francisco.

The business of the Association was taken up at the Tuesday afternoon meeting, with First Vice-President Chief John H. Alderson in the chair.

Following the usual routine business session, the technical program was inaugurated.

HIGH POINTS OF THE I. A. F. C. 77TH ANNUAL CONFERENCE SEPTEMBER 12-15, 1950 SAN FRANCISCO, CAL.

Registration: **1,870.**

Number of Exhibitors: **48.**

Topics: **15 timely topics were included in the program, with special emphasis on Civil Defense.**

1951 Conference City: **Grand Rapids, Mich.**

1950-51 Officers:

President: Chief John H. Alderson, Los Angeles, Cal.

First Vice-President: Chief Rudolph H. Swanson, Jamestown, N. Y.

Second Vice-President: Chief G. R. McAlpine, Oklahoma City, Okla.

Secretary-Treasurer: Ex-Chief Daniel B. Tierney, Arlington, Mass.

Executive Secretary: Jay W. Stevens, San Francisco, Cal.

Wet Water After Four Years

Former Chief Michael J. Dalton of Winnetka, Ill., reviewed the growing use of wetting agents in water, to increase the extinguishing effect of the water. After reviewing a number of instances where wet water had been used with good effect, he concluded that "we know now that any fire on which water is used, can be knocked down much quicker and with much less water, and consequently, much less water damage when wet water is used. Furthermore, its use permits greater and more effective utilization of personnel. Other economies result in less wear and tear on apparatus; less sickness of personnel due to over-exertion, smoke inhalation and exposure."

Non-Flammable Characteristics of Antifreeze

Because of the growing use of water solutions of the inhibited ethylene glycol

Committee from the International Association of Fire Chiefs Places Wreath at Grave of the Late Chief Charles J. Brennan of San Francisco, Former President of the Association

such as wood, rags, paper, upholstering, etc."

Help for the Fire Service

Elmer F. Reske, Manager, Cook County Inspection Bureau, Chicago, Ill., gave an extensive report on the various agencies which because of their activities, or interests, have proved helpful to the fire service.

Among these agencies are included the U. S. Department of Agriculture, the National Bureau of Standards, U. S. Forests Service of the Department of Agriculture, Federal Fire Council, U. S. Department of Defense, U. S. Bureau of Mines, and the Bureau of Explosives which cooperates with the Interstate Commerce Commission.

He reviewed various federal and state

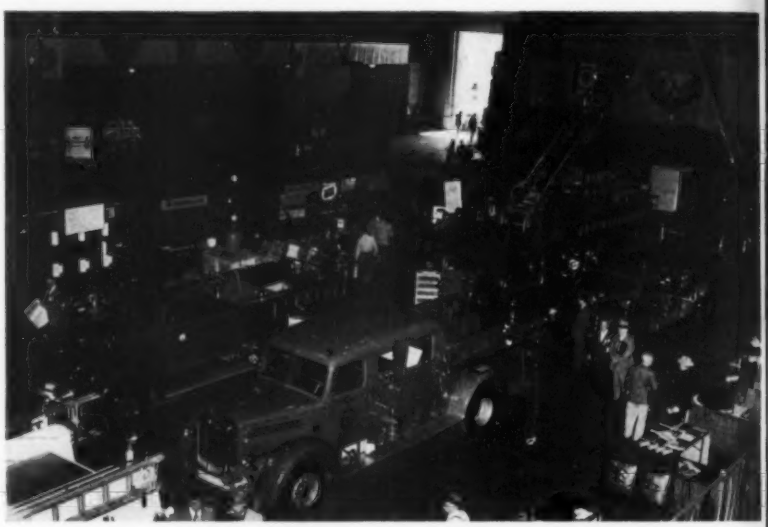
antifreeze, such as "Prestone," for radiant heating, snow melting and hydraulic applications, the question of the fire hazard of this product has frequently arisen. Those who have used the product in the cooling systems of motor cars, motor trucks and fire apparatus, realize that the hazard must be very small, if fire hazard there is.

To give the fire service authentic data on the non-flammable chracteristics of such solutions, James F. Duggan, Superintendent of Fire Protection, Carbide and Carbon Chemicals Division, Union Carbide and Carbon Corporation, and D. H. Green, Manager of the Automotive Engineering Department of the same organization, presented a paper entitled "The Non-Flammable Characteristics of Water Solutions of Ethylene Glycol Antifreeze."

After reviewing the findings of numerous technical groups, the authors concluded: "Inhibited ethylene glycol antifreeze-water solutions in concentrations up to 60 per cent by volume (62 degrees F. below zero freezing point) did not burn when sprayed onto intense wood and gasoline fires. In fact such solutions acted as control and extinguishing agents.

"The National Bureau of Standards found that inhibited ethylene glycol and water solutions were non-flammable when sprayed upon a hot engine exhaust manifold. Coordinating Research Council test data showed that ethylene glycol solutions below 85 per cent concentration have no flash point—hence, no fire point. The National Board of Fire Underwriters recommends the use of ethylene glycol-water solutions as the antifreeze medium which may be discharged from sprinkler systems onto fires. The Naval Research Laboratory substantiated that ethylene glycol (60 per cent) water solutions were not fire hazardous when sprayed upon an ignition source or struck with an incendiary bullet.

"The physical properties of these antifreeze-water solutions confirm the results of the fire tests. In particular, the decreased surface tension is an aid in extinguishing and preventing reignition of fires in ordinary combustible solids



Section of the Exhibit Hall, Showing Part of the Splendid Array of Exhibits at the San Francisco Conference

laws which are of help to the fire service. Among the private organizations rendering service to fire departments are: International Association of Fire Chiefs, the International Association of Fire Fighters, National Fire Protection Association, the National Safety Council, the National Fire Wastes Council, the National Board of Fire Underwriters, the Underwriters' Laboratories, regional inspection and rating bureaus, underwriting associations, adjustment

After the 77th Annual Conference Concluded Its Final Session

Left to right: Chief Rudolph H. Swanson, Jamestown, N. Y., newly elected first vice-president of the Association; James E. Jagger, New York, general manager of the I.A.F.C., rests his weary legs; Chief Henry R. Chase, Miami, Fla., past president; Jos. H. Green, sales manager, Eureka Fire Hose Division, U. S. Rubber Co.; Fred Shepperd, Editor of FIRE ENGINEERING.

Crowd Overflows the Lawn at the Home of Jay W. Stevens at Orinda, Cal.

organizations, salvage corps and fire insurance patrols.

A Mayor Praises the Volunteers

The Hon. Henry Beckstead, Mayor of Midvale, Utah, discussed the volunteer fire department and its benefits to a municipality. He extended high praise to volunteers, and pointed out how they were of great benefit to their community.

Water Supplies for Wartime Fire Fighting

The first topic on the Wednesday morning program was delivered by John H. Arnold, Assistant Chief Engineer, National Board of Fire Underwriters, Chicago, Ill. Mr. Arnold reviewed the various emergency sources of water supply and outlined the procedures which are necessary to make such supplies available in the event of fires from enemy bombing. One point in Mr. Arnold's address which was of considerable interest was a statement that calculations based on fire flow tests made in a number of cities showed that breaks in 6- or 8-inch mains in an area where gridiron and initial pressures are fair to good would only reduce pressure below those required for small streams in a small area within a radius of 500 feet. On larger mains the areas affected would be vastly more extensive.

"In two far-western and one New England cities," said Mr. Arnold, "breaks in 12-inch mains, and in a southern city a break in a 16-inch main would adversely affect areas only within a radius of 1,000 feet or less. Therefore, it can be seen that material confidence might be placed in the domestic distribution systems."

Civil Defense at the Municipal Level

Battalion Chief Jesse H. McLendon, of the San Francisco Fire Department, discussed the subject, "Civil Defense at the Municipal Level." He reviewed the defense program of San Francisco which was initiated many months ago, and which, today, is fairly complete.

The disaster corps in San Francisco consists of the following divisions: fire, police, communications, medical, public works, transportation, utilities, welfare, American Red Cross, and personnel and recruitment.

"The purpose of the San Francisco Disaster Council and Corps is two-fold: (1) to coordinate the actions of the various departments concerned with handling a local disaster and (2) to serve as a nucleus for the reestablishment of a civil defense organization when needed."

Immediately after the Korean outbreak, the disaster organization was expanded, and today covers all possible phases of disaster.

Preparation for Emergency

Chief William Fitzgerald, of the Seattle Fire Department, presented a paper entitled "When Fire Is Imminent, Firemen Should Prepare."

Chief Fitzgerald reviewed events which took place recently, and which indicate that war is imminent. Civil defense preparations in Seattle were reviewed. In reference to the Seattle plan, Chief Fitzgerald added: "There can be no doubt of the effectiveness of an approach to civil defense such as held at Seattle. It is a method that may be adapted to any situation in any city.

"No city, by itself, may cope with an atom bombing. No fire department, by itself, may cope with the fires which an atom bomb will cause. Civil defense exercises will stimulate mutual aid as between cities and agencies of government and advance preparations to meet disaster."

Fire Protection at the County Level

The last topic on the Wednesday morning program was delivered by Chief Spence D. Turner of the Los Angeles County Fire Department, Los Angeles, Cal. Chief Turner described in detail the setup of the Los Angeles County fire protection system and reviewed the difficulties which had arisen during the development of the county fire fighting organization.

Because of the lack of water in large parts of the county, it is necessary that tank pumpers be employed, averaging 500 gallons water carrying capacity and up to 1,000 GPM pump capacity. The Los Angeles County Fire Department has performed very effectively, despite this handicap.

Improving the Work of Fire Prevention Bureaus

Chief Roy S. Moulton, Bureau of Fire Prevention, Kansas City, Kans., Fire Department, opened the Thursday morning session with a discussion of the subject, "How Can We Improve the Work of Our Fire Prevention Bureaus?"

He stressed the importance of keeping the bureau entirely free of politics, and pointed out the value of such a bureau from the standpoint of public relations if it is permitted to function without interference. Chief Moulton stressed the necessity of picking men qualified for this type of work, rather than calling upon any firefighter to perform inspection work.

Petroleum Fire Control

Chief R. E. Merchant, of the B. F. Goodrich Chemical Co., Port Neches, Texas, gave some very sound advice on handling petroleum fires, particularly

Part of the Crowd Attending I.A.F.C. Banquet at Fairmont Hotel, San Francisco

those involving highly volatile petroleum products, in his paper of the above title.

Butadiene, he pointed out, makes a fire which is particularly difficult to extinguish. He questioned the wisdom of extinguishing a fire involving a broken butadiene line under pressure, for butadient vapor flows along the ground very much like water, and may reach a source of ignition at a distant point and flash back. He pointed out that there is on record with the Bureau of Mines an incident where escaping gas from a damaged connection on a butadiene tank car was ignited by an automobile, traveling along a highway, and flashing back for a distance of five miles, killing three men who were making repairs to the tank car.

If exposures can be covered, and if the burning of the butadiene is unlikely to involve other property, apparently it would be wiser to let the butadiene burn and devote all efforts to covering seriously exposed property.

Explosion Hazards in Hospital Operating Rooms

Chief C. E. Ginther of Rochester, Minn., home of the famous Mayo Clinic, outlined the precautions followed in that great institution to prevent explosion of volatile flammables, and combustible gases, which are commonly encountered in a large hospital.

"Many combustibles are used in operating room practice," stated Chief Ginther. "Not all of them are used as anesthetic agents. Ether, benzene and alcohol will all burn and are listed as combustibles. Of the anesthetic agents commonly used, ether, ethyl chloride, vinethene, cyclopropane and ethylene constitute a continued hazard. However, before any of these combustibles will burn their combustion must be supported by oxygen in some form. What some may not know, however, is that nitrous oxide, even in the absence of oxygen, provides a supporting agent for combustion. Nitrous oxide in itself will not burn. However, it supports heartily the burning of other combustible agents."

Fire Service Training

Battalion Chief C. T. Howitt, Training Director of the Los Angeles Fire Department, gave an interesting talk on fire service training. The address was devoted largely to the subject "Ventilation" and concluded with a motion picture designed to instruct fire department members in this very important phase of fire fighting.

Stamina for Leadership

The first paper on the last technical session on Thursday afternoon was delivered by Mrs. Muriel Morse, Assistant General Manager, Department of Civil Service, Los Angeles, Cal., and covered the subject of leadership, particularly as applied to the fire department.

Mrs. Morse in her talk, ably discussed the following questions: Is your department well organized? Are your subordinate leaders in sympathy with your objectives, but do they also have ideas and methods of their own? Do you delegate responsibility and with it authority? Do you have the proper controls set up so that you know whether your subordinates are meeting the challenge? Do you keep your organization flexible? Are there too many layers between you and your men? Do you know the jobs in your organization? If a civil service or personnel department is recruiting and examining your men, how much do you know about the recruitment program? Do you make yourself a personal part of that recruitment program? What do you do to train your men after you get them?

A Guest from Honolulu Entertains Visitors with a Hawaiian Dance on the Lawn at the Home of Jay W. Stevens

Pyromania—Its Causes and Effects

In a very interesting address, Dr. Paul DeRiver, Criminal Psychologist, Los Angeles Police Department, discussed the subject of pyromania. Dr. DeRiver reviewed the manifestations of pyromania, and the psychological aberrations detected in the average pyromaniac. He gave a number of interesting incidents relative to the work of pyros.

Fire Protection—A Cooperative Effort

The last paper on the technical program was presented by R. C. Stange, Assistant General Manager, National Board of Fire Underwriters, San Francisco, Cal. Mr. Stange gave a very complete and informative discussion on fire protection in general, and illustrated very clearly the value of cooperative effort.

The Final Business Meeting

Friday forenoon, September 15, was devoted to the final business meeting of the Association. The election of officers, selection of next year's convention city and other new business was taken up.

A resolution was adopted urging civil defense officials to permit the continuance of sirens on fire apparatus, on the grounds that these sirens are not confused with air raid alarm sirens. A resolution was also adopted urging Selective Service to consider deferring experienced firemen.

Exhibits

The excellent layout of exhibits, which were secured through the efforts of the Chairman of the Exhibit Committee, Chief L. C. Canning of Midvale,

(*Continued on page* 842)

Twenty-Three Members of the Honolulu Fire Department, Who Recently Underwent Special Training at the City of Los Angeles' Fire College, and Subsequently Attended the I.A.F.C. Conference at San Francisco, Are Shown Departing Homeward by Air. Their Three-Week Course Covered State and Country Fire Laws, Net Jumping, Drill Tower and the Use of Modern Automotive Fire Fighting and Rescue Equipment

Fire Service Ladders and Their Use—Part VI

Technique for Testing Fire Department Aerial Ladders

By ROI B. WOOLLEY

Editor's Note: This is the sixth in the series of chapters dealing with fire department ladders, ladder operations and evolutions. This Chapter is devoted to the testing of wooden aerial ladders. It was originally scheduled for publication at a later date but its printing has been advanced in the series because of numerous requests for information on this subject, which assumes special importance because of the need of replacing wooden aerial ladders in many cities.

Fire chiefs are showing increasing concern over the safety factor in their aerial ladder trucks and are seeking the most approved methods of testing such equipment. A number of chiefs seek this information also to enable them to evaluate ladder obsolescence so that they may effectively place all the facts before their local governing officials and their taxpayers as part of their program for modernization of their departments.

The editors gratefully acknowledge the assistance given the author by the manufacturers of ladders and fire apparatus, particularly Hubert A. Walker, Manager, Motor Fire Apparatus Sales Engineering, American LaFrance-Foamite Corporation, Elmira, N. Y., and Peter Pirsch, President, Peter Pirsch & Sons Co., Kenosha, Wis., and the numerous fire chiefs who have contributed their experiences. The editors take this occasion also to acknowledge with thanks the many expressions of appreciation of this treatise advanced by our readers.

This chapter by no means exhausts the subject of aerial ladders. Further information on their history, design and construction, operation and maintenance will follow at a later date.

Previous installments in the series covered: "A Glossary of Ladder Terms" May, 1950 Fire Engineering) "A History of Fire Service Ladders" (June issue); "Ladder Standards: Types of Ladders and Their Construction" (July number); "Uses and Limitations of Fire Service Ladders" (August issue); and "Ladder Reach and Capacities—Overloading and Marking Ladders" (September number).

OF all types of fire fighting apparatus in service in American fire departments today, the greatest obsolescence is found in the classification of wood type aerial ladders.

Surveys by FIRE ENGINEERING over a period of years indicate that 44 per cent of such ladders on service today are over 15 years of age; 29 per cent over 20 years.

Obviously, most of these ladder trucks are of pre-World War II vintage. Since VJ Day the percentage of wood aerial ladder trucks manufactured and delivered has been far less than the metal types and it is continually dropping. It is in the field of the wood aerial, therefore, that greater obsolescence is found. Consequently, in this category exists the greatest need for applying any technique for trial and test. Although the metal aerial ladder is not new to the nation's fire service, and many cities have been operating such equipment for many years, there has been little call for a method of testing them, as compared with their wood prototypes. The reasons should be obvious.

The physical properties of aluminum and steel, such as are used in metal fire department ladders, are more stable than wood. They are fixed within certain definite limits. These metals are not subject to fatigue over a period of years as is wood, which continues to undergo fatigue the longer it is in use. Furthermore metal type ladders are not subject to deterioriation by age—such as

Fig. 1. Method of Attaching Test Rope and Tape Measure to Fly Ladder Before Ladder Is Raised. Tape Is Fastened Directly to the Top Rung of the Fly

Fig. 2. Sand Bags Weighing 25 Lbs. Each (Center) and Main Container Consisting of Coal Carrier, with 2x4-In. Piece Through Handles at Right. Test Rope Is Fastened to This Container and Weight Gradually Increased by Addition of the 25-Lb. Sacks Added to This 100-Lb. Container

rotting, slivering, checking—nor are they susceptible to extreme conditions of weather, as are the wood types. In brief, aluminum and steel ladders require very little attention and therefore cause less concern over safety factors among fire chiefs than do their wood counterparts.

Operating mechanisms of metal ladders may require attention from time to time but the need to check and recheck and test the metal ladders that have been on the market for some time is not as imperative as it is with the wood types.

This does not mean that metal aerial ladders should not be periodically checked. Every ladder should have its regular check-up. But full-scale tests, using weights, are not as essential with the metal types as with the wood models. Normal routine inspection conducted when the metal types are serviced should bring to light evidence to warrant the full-scale tests.

Skill of Operators a Factor

Another factor which bears upon the importance of recurrent tests is the skill and ability of the operators of aerial ladders. Modern aerial ladders are finding their way into small town and village departments, where operators may be volunteer or part-time personnel without previous experience in the use and care of such equipment, where it is not easy to acquire adequate training in this field. Maintenance and care, as a result, are not always on the same standard that they are in the paid municipal department.

The modern aerial ladder is a costly piece of equipment. Carelessness and inexperience in operation and preventive maintenance of such equipment have resulted in most of the trouble encountered in this apparatus classification. Much of this is due to lack of training the operators, or those responsible for servicing and testing this apparatus. Therefore, in considering the testing of any ladder, aerial or otherwise, it is as essential to have the work done by trained personnel as it is to follow the most approved test technique for the particular type and kind of ladder.

No one test method should be expected to meet every requirement for testing every type of aerial ladder, or every manufactured product. Regardless of the method adopted by any fire department, it will be well for that department to secure from the manufacturers of its ladders all possible information and instructions on testing their ladders, just as they secure from the manufacturers all possible instructions on operating and preventive maintenance of the motor mechanism.

Where possible, although not imperative, test operations as described in the following should be conducted by, or at least under the watchful eye of a representative or representatives of the manufacturer. Another thing: tests should be run off according to the maker's recommended standard procedure if at all possible, and not according to hit-or-miss methods that may have been developed by someone not familiar with the type and make and the life-history of apparatus in question.

Accurate records of all tests (date, weather, location, personnel, etc.) should be kept by qualified persons equipped with the necessary facilities for doing the job. In this connection, it may prove beneficial if the tests can be recorded photographically, step-by-step using a moving picture camera. If not feasible to photograph every stage of of the test procedure, pictures should be taken to illustrate particular findings, such as ladder failure or defects. Filming the major details of the test provides incontrovertible evidence for the record—evidence that can be taken before a governing body, or jury, and can in addition be used to excellent advantage by any fire chief to buttress his requests and recommendations for new equipment.

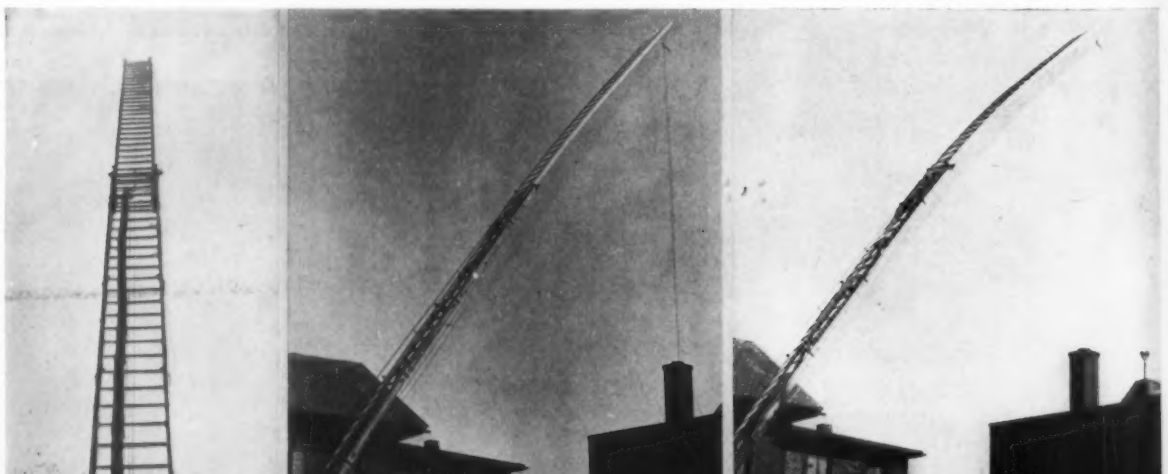
The Test Procedure

Before any test is conducted on an aerial ladder, it is advisable to review the service record of the ladder in question, dating from its installation in the department. This should disclose any accidents that may have happened to it, any repairs or replacements, and any complaints received concerning its operation. Weaknesses thus disclosed may affect the test procedure.

Preferably, tests should be conducted at a safe place, preferably out of view of curiosity seekers. A day when the air is still is preferable, as explained later. If a wind is blowing and ladder must be elevated, it is advisable to raise the ladder parallel to the direction of the wind with the rear of the truck pointing to windward.

Before any test is conducted on an aerial ladder, it is necessary to thoroughly inspect the ladder, with particular attention to any details that have been disclosed by its service record.

Age of the ladder is no criterion of ladder weakness in itself. Also, there may be imperfections in the ladder or its fastenings and appurtenances, which may not be visible ot the casual inspector. It should be emphasized that wood, being an organic material, is subject to deterioration with age. The degree and amount of deterioration varies according



Left: Fig. 3. Showing Ladder Raised, with Fly Extended to Full. Test Rope May Be Noted Under Upper Part of Ladder and Drawn to the Right for Photographic Purposes. In Use, Rope Hangs Straight Down. Tape Cannot Be Distinguished, but Is Hanging Straight Down. By Sighting Along This Angle of the Raised Ladder Any Twist Can Be Noted. Center: Fig. 4. Side Elevation Showing Deflection with 100-Lb. Test Weight Attached to Test Rope. Fig. 5. Side Elevation of Same Test as Fig. 4, Showing Ladder Deflection Under Maximum 200-Lb. Test Load, as Described Herein. (Illustrations Showing Deflections Under Test Loads of 125, 150 and 175 Lbs. Not Shown.)

to the use that has been made of the ladder and the conditions under which the ladder has been maintained.

This pre-test inspection must include the following:

1) Inspect both the butt ladder rails and the fly ladder rails for cracks which may be visible.

2) Check the ladder for loose rungs. One or two loose rungs will not have any material effect on the ladder, but if there are several loose rungs present, the ladder is not to be tested until the rungs have been properly tightened.

3) Check all bolts and lag screws in the ladder trussing and in the attachment of the ladder to the raising mechanism.[1] If lag screws are not tight, or cannot be tightened because of weathering, the ladder should be considered unfit for service. The truss posts must be solidly anchored before the ladder can be tested. Where varnish has worn or has failed to keep the moisture from entering around lag screws and anchoring truss posts, sufficient weathering has occurred to warrant a wrench check on every lag screw to make sure it is tight. This is very important as the truss posts must be solidly anchored to maintain an upright and vertical position throughout the test. The failure of one post may cause a ladder failure during the test. Where the truss posts are bolted in position, check to make sure that the bolts are tight. After this pre-test inspection of the ladder, if it is found satisfactory, it is then ready for testing.

Test Materials

For the test procedure described in the following, these materials should be provided:

a) One length of ¾ in. or ⅞ in. Manila rope, approximately 100 ft. long.

b) One steel tape 75 ft. or 100 ft. long.

c) One protractor with spirit level to measure the angle of the ladder (Starrett Co. # 12 instrument is satisfactory).

d) Five bags of sand. One 100-lb. bag and four bags of 25 lbs. each (fig. 2).

e) One canvas coal bucket with a 2 x 4 in. piece of wood for attaching rope (see fig. 2) or a platform or box which can be attached to the rope that will carry the sand bags. If a platform or box is used, the weight of the same should be subtracted from the 100 lb. sand bag so that the initial loading of the ladder will be 100 lbs. For example: if the platform or box weighs 30 lbs., then the sand bag should weigh 70 lbs.

Test Conditions

1) No aerial ladder test is to be conducted at atmospheric temperature of less than 40 degrees F.

2) Test is to be conducted in still air to avoid dynamic loading of the ladder. If the ladder is tested with a strong wind blowing and with a long rope from the ladder and a weight attached to the lower end, a pendulum action may be introduced which would add load to the ladder far beyond the test weight.

3) Attach the weight rope to the side rails of the ladder (shown in fig. 1) so that the test load will be uniformly carried by the two ladder rails. Attach one end of the steel tape-line to the top rung of the fly ladder.

4) Measure the depth of the side rail of the fly ladder near the lower end and elevate the ladder to the proper angle according to the depth of the side rail as shown in the table of tests below. Place a protractor at the top edge of one of the butt ladder side rails so that the ladder will be elevated to the proper angle.

Normal Ladder Length	Fly Ladder Side Rail Depth	Angular Elevation for Testing the Ladder	Maximum Ladder Deflection
75′—0″	4½″	60 deg.	40″
75′—0″	5 ″	50 deg.	39″
85′—0″	4½″	65 deg	55″
85′—0″	5 ″	60 deg.	48″
85′—0″	5½″	50 deg.	48″

5) Check the aerial ladder to make sure there is no twist, or wind, to the ladder and that both rails are parallel and there is no evidence of one being lower than the other. (A good check can be made by standing in front of the truck and sighting along the rails of the raised ladder.)

6) Measure the distance from the top of the ladder (with fly extended as shown in figs. 3 and 4) to the ground with the steel tape.

7) Attach the container with the 100 lb. sand bag (or its equivalent, if the weight of the container is to be deducted) to the rope so that this container is approximately 4 ft. above the ground surface. This is to give sufficient leeway when the tip of the ladder is deflected and the rope and container drop as the load is increased. Release the load slowly to avoid undue stress on the aerial ladder. If the ladder at this point shows any twist, or wind, or at any subsequent loading up to the maximum load given, the test is to be immediately discontinued as any further addition of load will cause ladder failure.

8) Check immediately when the load is suspended freely to make sure that the ladder is square and that there is no evidence of twist or wind in the ladder. Measure the height of the end of the fly ladder to the ground. On the 75 ft. aerial ladder with 4½ in. depth of fly ladder side rail, the deflection should be approximately 15 in. to 16 in. (as shown in fig. 3).

9) Support the 100 lb. weight while adding a 25 lb. weight and gradually free the load until the 125 lb. total load is supported by the ladder. Again check the ladder to make sure it is square and there is no evidence of twisting to one side or the other. On the 75 ft. ladder with 4½ in. depth of fly side rail, the deflection at this point should be approximately 25 in. to 27 in.

10) Support the weight as before, while an additional 25 lbs. is added to the load, and carefully remove the support until the ladder is carrying the full 175 lbs. Again check the ladder condition to make sure it is square without any evidence of twist. On the 75 ft. ladder with 4½ in. depth of fly rail, the deflection will be approximately 31 in. to 33 in.

11) Now support the load as before, while an additional 25 lbs. is added, and then carefully remove the support until the ladder is carrying a 200 lb. load. Check the ladder again to make certain it is square with no sign of twist and that all truss posts are vertical. At this point the deflection will be approximately 38 in. to 40 in. and should not exceed 40 in. Figure 4 shows the ladder carrying 200 lbs. under the descriptions outlined in the foregoing.

Finally, remove the load from the ladder; leave it extended, as before, and after five minutes, check the free height from the end of the fly ladder to the ground by the tape. The fly ladder after this interval should have fully recovered from the deflection introduced by the test load, and the free end of the ladder should check with the original distance from the ladder to the ground before the load was applied. In the event the ladder does not recover to the original position, the ladder should be considered unsafe for further use.

The ladder after being lowered and the test gear removed may then be given another check to see if any weaknesses have developed to the eye during the test.

[1] A place to search particularly for weaknesses is at the juncture of the metal reinforcing with the beam of the main section or butt ladder where the bolts go through the wood.

Jury Renders Verdict on Chicago Street-Car, Gasoline Truck Disaster

Following the tragic collision between a CTA surface street car and a tractor and double trailer truck in Chicago on May 25, 1950, the Coroner's Jury impanelled to investigate and report on the holocaust rendered its conclusions and recommendations. The Foreman of the ten-man Jury was John J. Ahern, well known fire engineer of the Illinois Institute of Technology. The panel took testimony of many witnesses including members of the Chicago Fire Department.

The following conclusions were reached:

1. A flooded underpass made necessary the re-routing of the street car, which started the chain of circumstances leading to the accident.

2. The motorman did not know, or did not understand that he was to make the turn. However, he approached and entered the facing switch at an excessive speed in violation of operating rules.

3. The double trailer bulk gasoline transport which was struck by the street car conformed to the provisions of the National Fire Protection Association tank truck standards and was operating in accordance with local regulations as to its size, load and route. The street car, as it took the switch, struck the fuel supply tank of the tractor splitting it open. This tank contained approximately 40 gallons of gasoline, and was immediately ignited. The sudden stop and impact caused the first trailer to ride up over the tractor. The rear of the tractor's frame ripped open the bottom of the semi-trailer, releasing 4,000 gallons of gasoline which flowed down the street, igniting a number of buildings downgrade from the scene of the accident. The second trailer, which also contained 4,000 gallons of gasoline, was completely surrounded by fire, but the vents worked satisfactorily, and the tank withstood the severe internal pressure.

4. A typical panic ensued as fire

(*Continued on page 862*)

NASHVILLE FIREMEN CONTROL COSTLY FIRE UNDER HANDICAPS

Ancient Structure, Limited Approach, Aerial Ladder Shortage and Hot Wires Make It Tough for Fire Fighters

A STAFF REPORT

Editor's Note: **Acknowledgement for their assistance in providing the information upon which the following account of the Kornman Building fire in Nashville, Tenn., is made to R. H. Davidson; to Fire Chief H. D. Demonbreun and Secretary Jakes of the Nashville Fire Department and to J. W. Shelby of the Tennessee Inspection Bureau. Credit is also given to the Nashville Banner for the staff photographs by Doug. Underwood.**

AN ADT sprinkler alarm timed at 5:20 A. M. on the morning of Sept. 2 last served notice of a fire in the 78-year-old A. L. Kornman Company building, 346 Public Square, Nashville, Tenn., which, before it was controlled by almost the entire fire department in a day-long struggle, caused property damage estimated at one million dollars.

The property involved occupied the east side of Nashville's Public Square, lying between a sloping driveway on the north side, and the approaches to the new Cumberland River bridge on the south. At its rear flows the River, approximately two stories below the grade of the Square. Thus the building is higher at its rear elevation than in the front.

The structure was 4-stories and attic in front by 6-stories and cock-loft in the rear, measuring nearly 300 feet depth by half that in width. It was of granite faced brick joisted construction, bound with metal tie-rods and was one of the oldest business buildings remaining in the city.

The building was built in the early 1800's and originally was a sugar refinery. Following destruction by fire, the initial structure was re-built and was for many years the site of the Methodist Publishing House, at a time when the Public Square was the center of Nashville's business district.

The building was divided into four longitudinal sections by brick walls, one of which at least extended through the attic to the roof and was instrumental in aiding the firemen to make their stop. These divisions were occupied by a number of concerns, in addition to the Kornman Company. The premises were sprinklered and the sprinklers were reported in good condition and to have acted at the time the sprinkler alarm was received by the ADT Company. The unfortunate collapse of part of the ceiling of the top floor, mentioned later, undoubtedly nullified the value of the entire sprinkler system.

On the south of the building was located a 3-story wholesale merchandise house. Across the sloping driveway to the north were a Market House and a ramp, and a surgical instrument factory. These exposures were separated by First Avenue North, which dead ends at the Kornman Building.

At the time of the fire, the building was mainly occupied, in addition to the Kornman Company at 346 Public Square, by Harris Davis Co., and Rice Stix Co., at 344; W. S. Riddle Co., and Wiener Brokerage Co. at 342, and Golden Art Hosiery Co., Everett Beesley Co. at 340 Public Square. Most of these concerns were engaged in manufacturing, or wholesaling of clothing, dry goods and millinery. The attic section of the Kornman premises where the fire reportedly originated, contained sewing machine parts and some miscellaneous material. This company also occupied all floors in the manufacture and pressing of suits. The offices were located on the first floor and large storages of bolt cloth, shipping material etc., were located in the basement. The Company employed several hundred persons and at the time of the fire had a production of 700 suits a day. Between 20,000 and 30,000 garments, together with 800 bolts of cloth, were on the premises when the fire started.

A section of the property marks the site where three Nashville firemen of Engine 1 died under falling floors during a fire in 1937. Ironically, the building itself reportedly is the only structure that stands in the way of the approaches to the new Victory Memorial Bridge to span the Cumberland River. For this reason there is some question as to whether it will be rebuilt.

Nashville Fire Shortly After Firefighters Got in Operation

Cause Not Determined

The fire is believed to have originated in the attic spaces, and spontaneous ignition is suggested as a likely cause. When Chief Demonbreun arrived, the fire was blazing in the attic between the fourth floor and the roof near an elevator shaft. No one was in the building at the time, no watchman being employed on Friday and Saturday nights.

Just why the sprinklers in the attic apparently failed to confine the fire until firemen could attack the heart of the blaze has not been disclosed. It is known that some time after fire fighters had worked their way up into the structure, a portion of the attic floor fell out, bringing down with it piping of the sprinkler system on the fourth floor.

It is said Chief Demonbreun and other firemen narrowly escaped injury when the pipes fell. After this episode, inside fire fighting was given up and all men ordered out of the structure.

Despite the water poured into the building by the forces summoned on the equivalent of three alarms, the fire ate its way into the attic and the two upper floors of the Kuneman section of the structure.

Fire fighters were handicapped in their operations by the layout of the

building, which ran clear through to the river. This prevented attack from the waterside. Also, there was no particular vantage point to operate streams on the roof level, the adjoining roof being at the same level as the Kornman roof. Further obstacles were lines of high power wires on poles running across the front, or north face, of the burning building. These lines were "hot" throughout most of the fire, and seriously interfered with laddering the structure. At one point, Fireman Paul J. Bugre, a member of Engine 4's crew, was operating a hose on an aerial ladder when the line fell across the charged wires near the level of the second floor. He received a severe shock and only the fact that he had a secure leg lock on the ladder prevented his falling, it is said. Fire Department Drillmaster, Capt. Maurice Shutt, and other firemen went to Bugre's aid. Capt. Shutt received minor shocks in this process. Neither man was seriously injured, however, and both continued at work.

Fireman Lawrence R. Lovell was hospitalized for a broken foot received when the cable of an 85-foot aerial ladder broke, dropping the fly and forcing him to jump for safety. This resulted in a temporary delay in the aerial ladder operations.

Difficult to Move Equipment In

Firemen were also handicapped in their early efforts to get their equipment close to the building by farmers who had parked their trucks in front of the structure, preparatory to selling their produce on the Square.

Lack of sufficient, long aerial ladders, it is said, slowed attempts to reach the blaze.

Faced with these handicaps, Nashville's fire fighters fought the fire throughout most of the day before mastering it. In these operations two heavy streams were directed from ladder pipes on the west side of the building and hand lines were operated from neighboring roof tops, and from the top of the Market House on the north. At the height of the struggle, 20 lines were in operation, including six siamesed to feed the ladder pipes.

At 11:00 A.M., a rear portion of the remaining roof buckled and fell, releasing flames which flared above the roof line. As the tons of water thrown into the building threatened to bring down the walls, apparatus and all vehicles were moved back from the building and the spectators herded out of the danger area, behind rope barricades.

The Chronology of Alarms and Response

A total of 11 pumpers, 3 ladder trucks; a light truck; Chief of Department, two assistant chiefs, and two battalion chiefs, responded to the three calls.

5:20 A.M.—ADT 642: Engines 2, 5, 9, 10; Ladders 1, 3; Car 102, Assistant Chief G. A. Finley.

5:50 A.M.—Second alarm, Box 52: Engines 1, 4, 6; Ladder 2; Cars 101, 104 Chief H. D. Demonbreun; Battalion Chiefs J. K. Vaughn and C. Price. Also Chief J. D. Ragsdale.

7:05 A.M.—Special calls (equivalent to a third alarm): Engines 3, 7, 12 and 14.

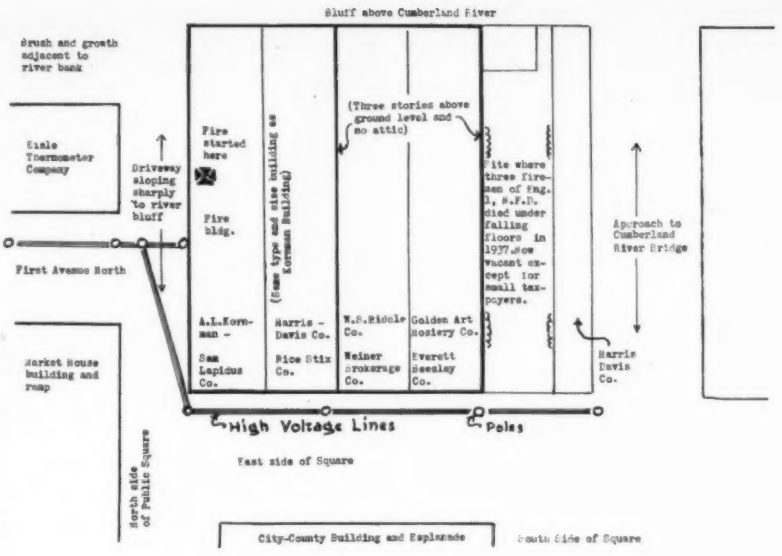

Bluff above Cumberland River
Brush and growth adjacent to river bank
Sisle Thermometer Company
Driveway sloping sharply to river bluff
Fire started here
Fire bldg.
(Same type and size building as Kornman Building)
(Three stories above ground level and no attic)
Site where three firemen of Eng. 1, N.F.D. died under falling floors in 1937. Now vacant except for small taxpayers.
Approach to Cumberland River Bridge
First Avenue North
A.L.Kornman - Sam Lapidus Co.
Harris - Davis Co. Rice Stix Co.
W.S.Riddle Co. Weiner Brokerage Co.
Golden Art Hosiery Co. Everett Beesley Co.
Harris Davis Co.
Market House building and roof
High Voltage Lines
Poles
East side of Square
North side of Public Square
City-County Building and Esplanade
South Side of Square

Diagram of Fire Area at Nashville, Tenn.

Re-locating and transfers: E 4/ E 14; E 8/E 2 (Headquarters); E 6/ E 12; L 4/L 2. Also: E 16/E 9; E 18/ E 4; E 17/E 7; L 4 to Headquarters. Also: E 16/ E 4 and E 15/ E8.

En route to the fire battalion chief's Car 104, driven by James H. Bass, was proceeding down Deaderick St. with siren sounding when a car crashed into it, knocking the fire car into a milk truck. None of the car drivers was seriously hurt and R. E. Moore, operator of the pleasure car received a charge for ignoring a siren.

Fire department officials and investigators from the Tennessee Inspection Bureau, are investigating to determine the cause of the fire. According to the Bureau, the building had been inspected within the week previous and found in good condition.

Water Damage Heavy

Fire damage was confined largely to the two upper floors and attic of the Kornman building. Water damage, however, was heavy. Retail value of the 20,000 to 30,000 suits and 800 bolts of woolen was reported to be $825,000. The Sam Lapidus Clothing Co., 344 Public Square, occupying one story next to the Kornman section of the building, reportedly suffered a total loss of stock. Harris-Davis & Co. whose occupancy includes all floors and attic of the third section of the property, reported everything damaged by water, with some fire damage in the attic. Loss to D. F. Siler Co., wholesalers of hosiery at 340, was reported as $50,000 to $60,000. The loss suffered by another occupant, the Aaron Turest millinery company, was not given. In addition to these occupants, others who suffered damage included: Rice Stix Co.; W. S. Riddle; Weiner Brokerage Co.; Goldern Art Hosiery Co., and Everett Beesley Co.

All fire companies but Engine 16 left the scene by 6:00 P.M. on Sept. 2. The latter company remained until midnight.

The wind at the time of the fire was Easterly, velocity 5 M.P.H. It shifted later to S.E. and S.S.E., not exceeding 7 M.P.H.

New Orleans Nearly Repeats Chicago Disaster

Lives of hundreds of persons were imperiled and the high value business district of New Orleans was endangered on Thursday, August 31, 1950, when a street car collided with a tank truck laden with 3,645 gallons of ethyl gasolene, spilling a third (1,215 gallons) of its highly flammable load into crowded Carondelet street immediately in back of the city's 100-year-old City Hall.

Located less than 100 feet from the scene of the crash were a gasoline service station, a large automobile sales and service agency, one of the city's major furniture stores, and dozens of other stores and offices.

Within minutes of the spectacular smash-up, which occurred almost at the peak of the morning traffic rush, Fire Chief Howard L. Dey was on hand to direct fire control operations. A large complement of firemen, and apparatus responded to the emergency call and operating large lines to flush the hazardous spill down the nearest drains.

With the cooperation of the engineers of the Sewerage and Water Board, the gasoline was then routed through channels which deposited it in a waterway which in turn took it into the Gulf of Mexico.

Happening as it did in the heart of the business district at the rush hour period, it tied up street cars and busses of three lines for some 15 blocks when thousands were coming to work. Most of these persons joined hundreds of curiosity seekers from the surrounding area to jam the street.

Although police officers attempted to stop people from smoking, in order to prevent the slightest chance of a contact spark touching off a blast, their efforts were of little avail. Careless pedestrains sloshed through the slick all around the scene, insisted on by-passing the temporary police barriers and, in addition to risking their own lives, hampered the firemen who were trying to avoid what might easily have been a spectacular disaster. To some who witnessed the episode, it appeared as

though only a divine providence prevented a catrastrophe.

By an odd coincidence, the collision took place almost immediately under the rear window of Commissioner of Public Safety Bernard J. McCloskey's office in City Hall.

"We didn't need any object lessons," the commissioner said, "but it certainly helps to convince when you realize that you are looking directly at what may be the biggest explosion in the making short of the atom bomb—and you'll be one of the first to get blown up."—S. C. FORD.

Gasoline Tanker Fire Threatens Kankakee Area

Kankakee, Ill., is another city to experience a serious fire that could easily have developed into conflagration proportions, resulting from the transportation of bulk gasoline through city streets. That the fire described in this account was controlled with as little property damage as it was, is a tribute to the Kankakee Fire Department, Roy Marquart, Chief.

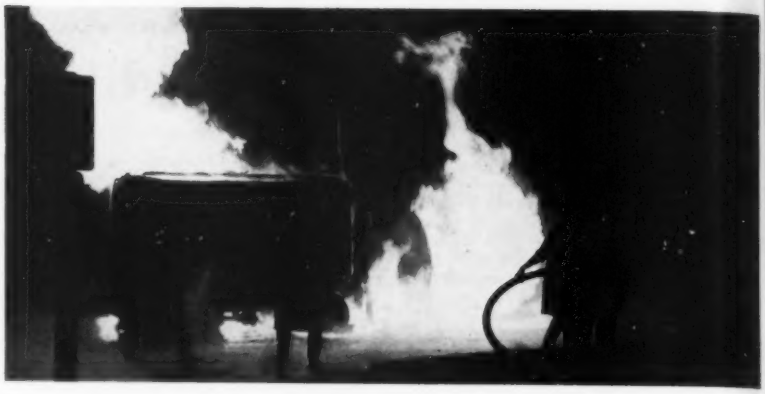
The accident, which set off the chain of events on Sept. 7 last, occurred in the 2,000 block of West Station street which thoroughfare is also Route 17, a major four-lane highway.

A tractor truck with two trailer tankers, each unit of which was carrying 4,000 gallons of gasoline, was proceeding east on Station Street, driven by James Ryan, 32 of Kankakee, an employee of the Rogers Cartage Company, the owners, when the tanker overturned and exploded after it struck the rear of a car which turned left in front of it. The driver of the transport jumped free and survived but received third degree burns about the body and head. The driver of the passenger car was not injured.

The impact released a flood of gasoline, which rapidly spread over the street and into the gutters. Vapors ignited, immediately setting a fire which engulfed the truck and communicated to the nearby Kankakee Foundry Company's plant across the street from the wreck. The street itself was quickly ablaze for over 300 feet. Two parked cars, located directly across from the accident, were set on fire as were two gasoline pumps at a gasoline station across from the wreck which had its windows broken from the radiated heat. Windows of two homes southeast of the scene of the crash also broke from the heat. The houses were blistered from the heat. The Florence Stove Works, situated just 100 feet west of the blast, had its windows cracked, paint blistered, and a utility pole next to it was set afire.

As will be seen from the diagram, this was a situation to challenge the hardiest fire fighters. The Kankakee Foundry, which was situated directly in front of the scene of the accident, was set on fire immediately. This building is a two-story brick and wood joist structure, running along Main Street and Route 17.

Fire Department Headquarters received the first of some 23 fire calls at 9:37 P. M. The telephone alarm advised that the foundry had blown up. Other alarms pouring in quickly, convinced the dispatchers that a serious situation had developed.



Kankakee, Ill., Fire at Its Height

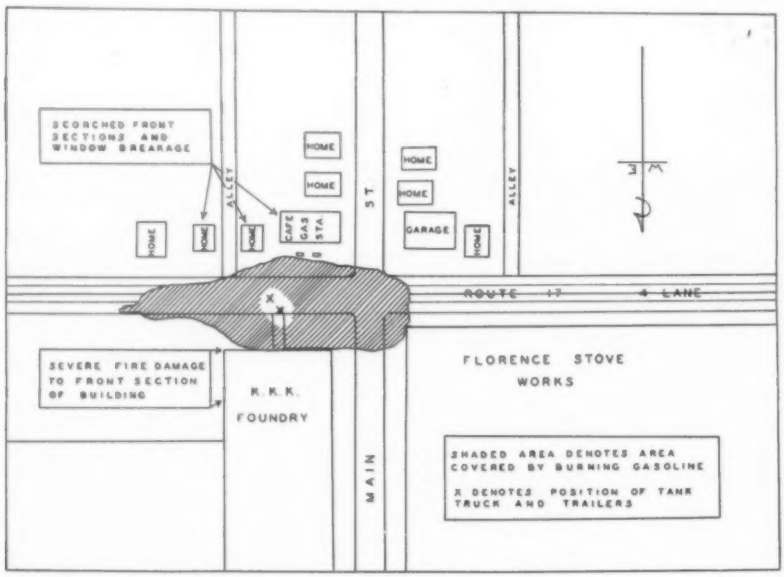


Diagram Showing Area Involved by Kankakee Fire

Off-Duty Firemen Called

First-due firemen reached the scene within two minutes after the alarm was telephoned in. A second alarm was radioed immediately. All off-duty firemen were called to the scene of the blaze. Appeals were sent to the Kankakee Valley Firemen's Association for assistance and fourteen companies responded to the calls. Some of these companies went to work at the scene of the fire and others located at the fire station to cover in.

Firemen relied heavily upon fog and foam. One foam generator and a ton of powder was used. Six 2½-inch fog lines and four 1½-inch fog lines were operated. Two 2½-inch lines were used to cover exposures at the Florence Stove Company; two 2½-inch lines were operated on the Foundry, and the remainder of the lines were used on the fire and to cover exposures on the southeast side of the street.

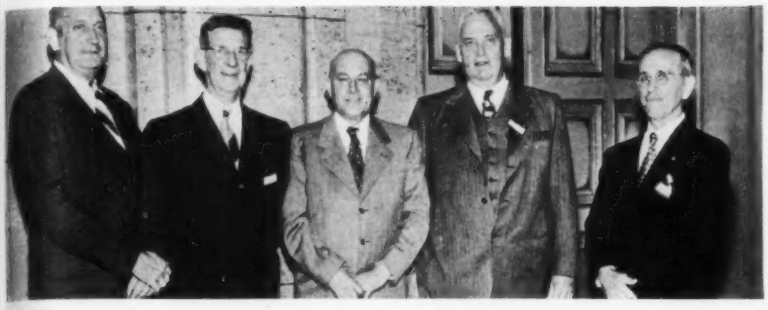
The thoroughfare itself was cracked and holes made 1½ inches deep for about 250 feet. The Foundry received damage of $10,000, largely to the front of the building, containing the offices. Total damage will exceed $30,000, according to chief Marquart, but this is a minor consideration considering the hazard of the surrounding industries and residences.

Ringling Wants to Settle

The Ringling Bros. & Barnum & Bailey combined shows has offered "immediate" payment of $690,612 in settlement of all unpaid claims arising out of the circus fire which took 168 lives and injured hundreds, in Hartford, in 1944.

The offer, made in August by circus representatives to lawyers representing claimants, was conditioned on the forgiveness of interest accruals, and upon acceptance by the claimants. A later meeting was scheduled for lawyers and claimants to discuss the offer.

The circus has been paying off the $3,946,355 claims in periodic installments, plus 4 per cent interest on the unpaid balance. Acceptance of the offer would mean loss of over $27,000 annual interest to claimants, but would also mean they would not have to wait another three years for final settlement.



New Officers of the Signalmen's Association

The slate of officers for the year 1951, pictured at the September convention Headquarters, Hotel Commodore. They are (left to right) John Carter, Chief, Signal Bureau, Jacksonville, Fla., Third Vice-President; Leo B. Landry, Superintendent of Wire, Watertown, Mass., Second Vice-President; Dan C. Wallace, Superintendent Electrical Bureau, Berkeley, Cal., President, and Charles E. Downs, City Electrical Consultant, Altoona, Pa., Treasurer.

Signalmen Hold Successful Conference in New York

Over 400 members of the International Municipal Signal Association, their ladies, and guests gathered at the Hotel Commodore, New York City, September 18 to 21 inclusive, for the Association's fifty-fifth Annual Conference.

President F. O. Goodwin, Newport News, Va., presided at the opening session. Following the invocation by Mons. Jos. A. McCaffrey, N. Y. Police Dept. Chaplain, the New York Fire Department Glee Club sang the National Anthem. General Convention Chairman, Deputy Chief of Staff and Operations, in Charge, Bureau of Fire Alarm Telegraph Thomas P. O'Brien, of the N.Y.F.D. was introduced. Acting Mayor Vincent R. Impellitteri then welcomed the delegates, after which Police Commissioner Wm. P. O'Brien spoke.

Impressive memorial services for the deceased members were highlighted by the Fire Department Glee Club.

The technical program, directed by William F. Hennessy, Electrical Engineer, Fire Alarm Telegraph System, New York, was a busy one. The Fire Alarm Section, presided over by Robt. J. Gaskill, Signal Systems, Ft. Wayne, Ind., on Monday, Sept. 18, heard these topics discussed: "A 500 Circuit Fire Alarm Central Office Installation" by Sam Fenton, Asst. Elec. Eng., N.Y.F.D.; "What Can Be Done to Avoid Delayed Alarms," by Arthur W. Sullivan, American District Telegraph Co., New York; "The Place of the Telephone in Fire Alarm Communicaitons," Wm. F. Hennessey, Elec. Eng., N.Y.F.D.; "Development of Fire Alarm Regulations and Specifications," by Leo P. Landry, Supt. of Wires, Watertown, Mass.; "National Board's Viewpoint on Fire Alarm Specifications," by George L. Swan, Engineer N.B.F.U.; "Importance of Fire and Police Signal Systems in National Security," by Frederick Philbrick, Pres. Gamewell Company, and "What Is Your Problem," by O. E. Smith, Supt., Fire Alarm, Edgewater, N. J.

Tuesday was given over to the Wire and Cable and Traffic Control Sections. On Wednesday, the delegates heard an interesting program headed by Arthur W. Wallender, Director, Civil Defense, New York City, who took for his topic: "Civil Defense Plans for New York City." Edw. J. Kehoe, Chief, Fire and Accident Branch, New York Operations, U. S. Atomic Energy Commission, spoke on "Atomic Bomb Effects." The topic "Civilian Defense Communications" was discussed by Seymour N. Siegel, Director, of Radio Communications for Civil Defense, New York City, and Herbert A. Friede, Supt. of Communications, District of Columbia (also President, Eastern Association of Fire Chiefs) concluded with his paper: "The Municipal Signal Engineers' Place in Civil Defense."

Thursday's sessions were largely given over to radio. Chairman Frank O. Schierff, Supt. Radio and Fire Alarm, Philadelphia, and Co-Chairman Edw. C. Denstaedt, Dir. of Communications, Detroit Police Dept. presided.

"Rules & Regulations" was the title of an address by Dan H. Arnold, Federal Communications Commission, Washington, D. C., who gave the Commission's side of the radio picture. "The Application of Radio in the Fire Alarm Communication System" was discussed by Cary Gray, Superior American Fire Alarm & Signal Co. Frederick T. Budelman, Chief Eng., Link Radio Corp., New York, spoke on "Radio Equipment Available for Fire and Police Services," and George W. Pettengill, Engineer, Radio Corp. of America, had the topic "Planning the Installation of a Radio System."

At the afternoon session, John Doremus, Chief Eng., Motorola, Inc., delivered an address on "Alerting Methods for Fire Radio Systems," and J. A. McCormick, General Electric Co., Syracuse, discussed "Why the Frequency Preference Plan? The session concluded with a paper by Edw. C. Denstaedt, cationed "Frequency Allocation."

The banquet was held Wednesday Sept. 20, with many notables of the fire, police and signal services in attendance. During the Conference there were numerous entertainment attractions, including a moonlight sail up the Hudson River, visits to Broadcasting Studios, a dramatic demonstration of modern pier fire extinguishing methods on the North River, participated in by a full assignment of New York fire fighters and most of the top ranking officials in the Department. Special entertainment also was provided for the ladies, including luncheons and fashion shows and a yacht sight-seeing trip around Manhattan.

The officers elected to pilot the Association for the coming year are: President, Dan C. Wallace, Superintendent of Electrical Bureau, Berkeley, Cal.; Treasurer, Chas. E. Downs, City Electrical Consultant, Altoona, Pa.

New York Uniformed Fire Officers Want Gas Masks

Representatives of the Uniformed Fire Officers Association of New York, attending the 20th Convention of the International Association of Fire Fighters, in Milwaukee, Sept. 5 to 8, introduced a Resolution pointing out that in performance of their duty, members of the New York Fire Department are subjected to the inhalation of fumes, smoke and gases which have a deleterious effect on their health and, further, that absence of gas mask protection hampers them in their work," resulting in inefficient operation, delay in getting to the seat of the fire, thereby increasing the losses from fire, smoke and water."

The Resolution also emphasized the fact that the condition under which the men are working increases loss of time by members due to greater number of sick leaves, and increased pension costs due to disability retirements from this cause. The resolution recommended that a minimum of two masks of the self-contained type be made a part of the equipment of each and every unit of the Fire Department of the City of New York, and also that provision be made for the servicing, upkeep and replenishing of the masks.

Fire Department Officials Attend Signalmen's Banquet

Section of the head table at the Annual Convention of the Association, Hotel Commodore, September 20, showing (left to right) Deputy Fire Commissioner, Dr. Harry Archer and Chief of Staff and Operations Frank Murphy, both of the New York Fire Department; Chief Rank Ertle, Jersey City Fire Department, a member of the Committee on Cooperation between the IAFC and the IMSA; and John Burt, New York State Department of Public Works, President, Southern N. Y. Section IMZA. Standing, left: Deputy Chief of Staff and Operations, in Charge Bureau of Fire Alarm Telegraph, Thomas P. O'Brien, and Irving Shulsinger Secretary, IMSA.

Jersey Shore Area Firemen Have Busy August

Fires in the Shore area of New Jersey during the month of August gave fire fighters plenty of exercise. Three of the blazes were multiple alarm operations.

On August 2, firemen from four communities joined in fighting a fire at the well known Ocean Grove North End Hotel, Asbury Park, which caused $40,000 damage before it was controlled. The fire was discovered by a bellhop, who was momentarily trapped on the top floor, and singed. The fire originated in the loft, and was confined to that area by prompt effective work of local fire fighters, aided by volunteers from nearby Ocean Grove, Neptune and Bradley Beach.

The hotel has been the scene of two previous fires. In 1925 a $100,000 blaze swept the south wing and, in 1938, a $215,000 fire wrecked the center section.

On Sept. 6 fire hit the famous Ross Fenton farms. The rambling night club was swept by flames even before the first alarm was received. Firemen from Wanamassa, where the structure was located, were joined by companies from Allenhurst, Oakhurst and Wayside. A company from Asbury Park patrolled the area to guard against new outbreaks caused by flying sparks.

Owner of the farms, once the gathering place of top theatrical entertainers, was damaged to the extent of over $100,000, the owner reported.

Six days later, on Sept. 12, fire visited the Brielle Yacht Club in Brielle. Two guests at the club and a two-year-old youngster were overcome by smoke as occupants were forced to flee through windows and over roofs before the spread of the flames.

This fire gave Brielle fire fighters an opportunity to test out their new fog apparatus under the best of operating conditions, and they soon had the blaze under control, but not before the Club had suffered property loss estimated at $50,000. Manasquan firemen and first aiders teamed up with the Brielle company in the struggle.

—FRANK WILGUS

Strike Fails to Halt Dominion Chiefs' Conference

The Annual Convention of the Dominion Association of Fire Chiefs went off as scheduled September 5 to 8, inclusive, in Victoria, B. C., notwithstanding the Canadian railway strike which delayed some of the exhibitors. Over 300 fire chiefs and their guests registered, among them many new members of the Association.

Forty-two chiefs managed to get through on the "Welland Special," thanks to James Arnott of Wilson & Cousins Co., Toronto, a Director, who managed to secure train accommodations. These hardy travelers met at the office of the Company, August 31, were driven by car to Welland, Ontario, where they boarded the New York Central for Detroit, changed to the Burlington in Chicago, thence by Great Northern to Seattle from which they were taken by boat to Victoria. Incidentally, Mr. Arnott was presented with a watch by the grateful admirers during the Convention.

The business program, which opened with President McRonald's address on Tuesday, September 5, was well attended at every session. Following Chief McRonald, Chief William J. Cawker, president of the International Association of Fire Chiefs, welcomed the delegates. Two addresses were delivered that day: "The Value of Fire Hazard Listings" by Dr. J. E. Breeze, University of Vancouver, and "Training in the Fire Department" by Tom Ward, Director of Firemen's Training, Office of State Fire Marshal, California.

Wednesday saw a demonstration of fire retardant paints by Ocean Chemicals Co., of Toronto, and a paper on "The Fireman and Radioactive Materials" which was given by Dr. G. G. Eicholz, Asst. Prof. of Physics, University of Vancouver.

On Thursday, the 7th, John H. De Graves, Fire Prevention Officer, B. C. Coast Woods Extension Bureau, delivered an address captioned "Timber-r-r-r." He was followed by Ralph R. Moore, Deputy Minister, Economic Affairs, Province of Alberta, and by Dominion Fire Commissioner C. Thompson and Maj. Gen. F. F. Worthington, Civil Defense Coordinator, all of whom had timely and important messages for the registrants. Two business papers also were given that day: "Oil Burners" by C. Van Boyen, Oil Burner Engineer, Gordeon Latham's, Ltd., Vancouver, and "Hazardous Chemicals," by W. G. Thompson, Industrial Chemist, Workmen's Compensation Board, Vancouver.

On the concluding day W. A. Walker, Fire Marshal, Province of British Columbia, spoke on "Arson"; Deputy Chief L. Foley, Vancouver Fire Department took for his topic "Rescue Methods as Applied in Conjunction With Modern Fire Fighting," and Chief R. Skidmore, Bellingham, Wash., Fire Department, concluded the sessions with his paper "What Is the Difference Between a Big and a Small Fire Department?"

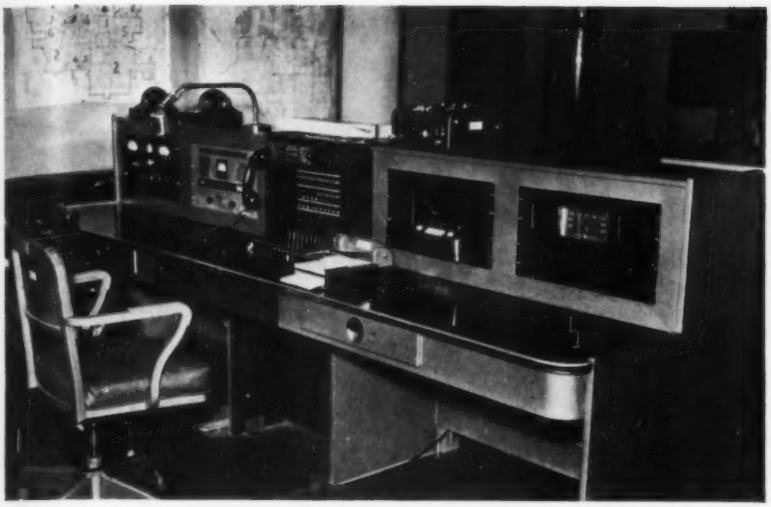
There was plenty of entertainment for the members and their ladies. This included trips to Crystal Gardens where there was an aquatic display and dance; a visit to the Naval Yards, Esquimalt, and to the College at Royal Roads, with refreshments served aboard H.M.C.S. Naden; a ladies trip to the Observatory; a smoker and refreshments for the men folk, and a visit to the B. C. Electric, where one of the largest propane installations in the country was viewed.

In addition to the demonstration of fire retardant paint, the delegates witnessed an exhibition of fighting oil fires with fog by C. E. Hickey & Sons of Hamilton, Ont., and of the use of dry powder on oil fires by Pyrene Company. Percy Buckle, of Vancouver, demonstrated the latest type Bean High Pressure Fog apparatus.

The new officers of the Association elected at the final session were: President, Chief W. H. Short, Lethbridge, Alb.; First Vice President, Chief S.

Photos Courtesy A. Gustave Agreen

Top: North End Hotel Fire Shortly After Fire Fighters Went to Work. Bottom: Volunteers at Work on Ross Fenton Farms Fire



Dispatching Board at Rockford, Ill., Fire Headquarters

Robinson, Kapuskasing, Ont.; Second Vice President, Chief C. G. Burnett, Ottawa, Ont.; Sec.-Treas., Chief A. H. Clark, Lakefield, Ont. Directors: Chief A. J. Spence, St. Boniface, Man.; Chief J. S. Thibault, Rouyn, Que.; Chief R. T. Brindle, Victoria, B. C. (host Chief of the Convention); Chief W. Partington, Hayes Steel Products, Merritton, Ont. (representing industrial chiefs), and James Arnott, Wilson & Cousins, Ltd., Toronto, Ont. (representing manufacturers).

Rockford Uses Smart Efficient Dispatching Set-Up

The Rockford, Ill., Fire Department, of which Wayne E. Swanson is Chief, has again made the headlines, this time as possessor of a unique condensed, stream-lined dispatching board and which Chief Swanson boasts has almost everything necessary for efficient fire department communications located within the operator's reach.

The desk part of the unit which, incidentally, is the work of one of the members of the department, was made from surplus lumber obtained from Camp Grant. This is built around a specially constructed switchboard designed to fit the needs of the department.

The picture tells most of the story. Reading from left to right: at the far left is the frequency meter (required by the FCC); next comes the R. C. A. two-way F.M. radio; then the switchboard itself. To the right of the switchboard is the intercommunication system for the headquarters building; and last is the panel containing the operator's A.M. radio; the last speaker hole with the switch directly below it contains the short wave radio that is tuned to the weather bureau at the Rockford Airport. The department, tunes in on this four times a day to receive the temperature, velocity and direction of wind which is in turn broadcast to all fire companies. This information is necessary for the reporting forms used by the department, according to Chief Swanson.

To the right of the switchboard, on the desk, is the electric time stamp which is used to time record the alarms as they are received by telephone. To the left on top of the desks is located a telephone that is used for outside calls made at the board. The next telephone is a long distance air raid warning instrument that was installed in the fire alarm office by the U. S. Air Corps and which is part of the local air raid warning set up. Next is the overhanging mike for the F.M. two-way radio.

Directly above the switchboard is the master control box which, by pushing the lever on the side, enables the operator to talk to all companies at once. To the right of the switchboard, located on top, is the wire recorder used to record all telephone alarms as they are received.

Below the desk are located the starting switches that are used with the various instruments.

Fire alarm superintendents, in particular, will recognize the compactness of the arrangement. It is so constructed that three operators may work efficiently in case of a major disaster or emergency.

The desk is sprayed with the new steel gray similar to the finish used in modern steel furniture and presents a most attractive appearance.

Fire Chief Plays the Good Samaritan

In Lewiston, Maine, there's a pretty happy youngster—two of them in fact. One is Irene Emond, aged 4, and the other her little brother. Father and Mother Emond also are very happy. All because of "a combination devoutly to be desired" as Shakespeare hath it.

The "combination" consists of Fire Chief Z. F. Drouin of the Lewiston Fire Department and the Lewiston Elks Club, who got together to bring happiness to little Irene and her brother.

It seems that during one of Chief Drouin's inspections with his departmental inspector, Al Landry, he came across Irene at the home of her parents. He noticed that the youngster had an unsightly burn scar on her neck and chin. Upon inquiry, the Chief learned that last April little Irene found a cigarette lighter which, when she played with it, lighted and set fire to a kerchief she had around her neck and head at the time. She was seriously burned and scarred and, although hospitalized for treatment, the accident left her apparently marked for life—another innocent victim of fire. That is, it would have done so but for the combination of Chief Drouin and the Elks.

The Chief believed that proper surgery might help the little one, but it developed that the hard-working parents lacked funds for any such operation, which would have to be done in Massachusetts.

Not discouraged, Chief Drouin got in touch with members of the Lewiston Elks Club, interested them, and they recommended an examination. Little Irene was sent to the Massachusetts General Hospital where, after consultation, she underwent the operation and the disfigurement was removed, with consequent improvement in her health

(*Continued on page 863*)

Chief Z. F. Drouin of the Lewiston, Maine, Fire Department with Four-Year-Old Irene Emond and Her Mother

August Fire Losses

Fires destroyed an estimated $49,878,000 in property in the United States during August, a decrease of .5 per cent from fire losses of $50,150,000, for the same month a year ago, it was announced by W. E. Mallalieu, general manager of the National Board of Fire Underwriters.

The August total represented a seasonal decline of 5.9 per cent from the July figures. July's fire losses were $52,980,000.

This slight drop in losses scarcely affected the steadily rising trend in fire destruction for the year. Losses for the first eight months of 1950 were $469,975,000, or 4.7 per cent higher than the $448,549,000, estimated for the first eight months of 1949.

For the 12-month period ending August 31, 1950, the total estimated loss is $688,962,000, an increase of 2.4 per cent over losses of $672,685,000, for the 12 months ending August 31, 1949.

These reported losses under fire insurance policies include an allowance for uninsured and unreported losses.

Waterloo Boasts New Stations

Waterloo, Iowa, opened the first of two new fire stations—No. 5, on January 28, 1949, the second, in the summer of that year. According to Fire Chief Ray Tiller, of Waterloo, and former president of the International Association of Fire Chiefs, they are "the last word" in fire station design and construction.

As shown by the illustration and floor plan, they are one-story type houses. Sliding poles are no more. Spacious living quarters are on the same floor as the apparatus, which area has room for two pieces of equipment. At present, Engine 5 sports a new 1,000 GPM unit and a spare pumper which can be manned by the off-shift crew when needed.

This is one of the first of the nation's fire stations to be heated with hot water radiant heat. Wrought iron coils are laid in the concrete floors. A concrete slab is laid over the basement, covered with Asphalt tile in the living quarters. The slab on the apparatus side of the structure is over five inches of crushed rock on the ground.

F. D. Photo by Bill W. Dunlop

Waterloo's New No. 5 Station

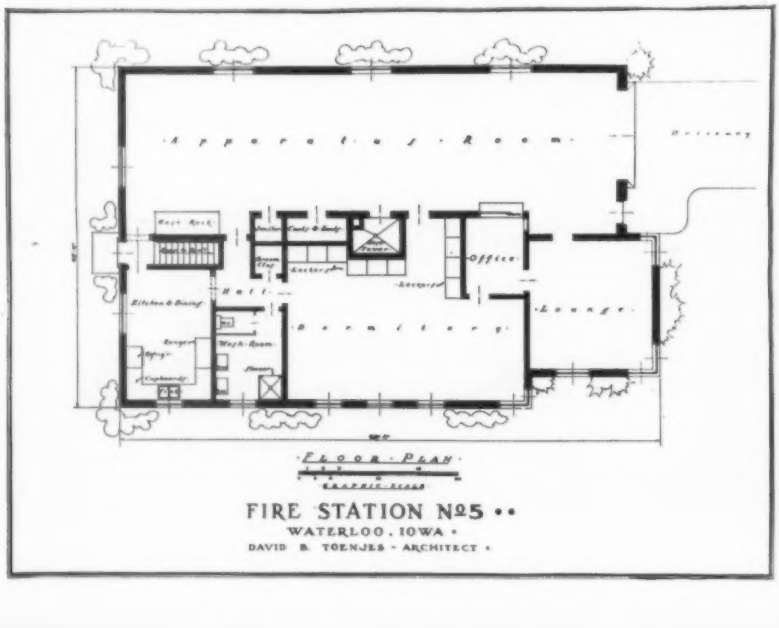
Another feature is the installation of two separate pumps on the heating system, allowing the apparatus room to be kept at a lower temperature than the living quarters. The hose tower, which can store 42 lengths of 2½ in. hose and six lengths of 1½ in., serves another purpose than hose storage. A suction fan is installed to draw the warm air out of the building's attic over the living quarters and louvres at each end of the apparatus room, taking the fresh air from the apparatus room to the attic over the living quarters.

The building is as near fire resistant as it is possible to build it, according to Chief Tiller. The ceiling over the living quarters is of metal lath and plaster, suspended from the steel roof supports. The ceiling of the apparatus room consists of 6 x 8 in. steel girders, six feet on center with steel roof decking forming the ceiling of the apparatus room. A 1½ in. fibreboard insulation has been placed on top of the roof decking and a built-up asbestos roof on top of the fibreboard insulation.

Ten all-steel lockers, 29 in. x 24 in. deep, running from floor to ceiling, are provided for the men. Ample toilet and washroom facilities, together with complete kitchen and eating rooms, are also provided.

As shown in the diagram, the office is just to the rear of the lounge room and connects with the dormitory. A large plate glass window between the office and apparatus room enables the watchman to keep an eye on the latter. One portion of the window slides like a show case window so that anyone who wishes to use the telephone from the apparatus side may do so without entering the office. The tape-register and takeup reel for the fire alarm system are mounted on a 10-in. wide oak shelf running the length of the plate glass window on the apparatus side.

The new structures reported cost is $38,000 each.

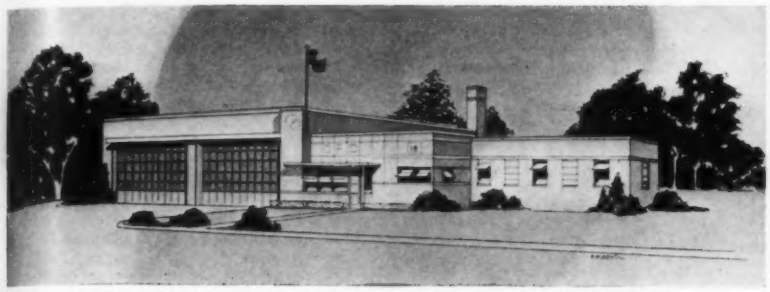


Los Angeles Department Produces Training Films

The Los Angeles Fire Department is currently engaged in the production of a series of fire personnel training films covering all phases of fire fighting, according to a communication to this Journal from Capt. C. A. Conlin, Jr., in charge of photography and publicity, for Chief Engineer John A. Alderson.

The first two of these 16mm black and white sound films are now complete. The film "Company Response" [12-minute running time] depicts all of the preliminary planning to be considered before fire strikes, the problems of response and the "size-up" before actual attack. The film "Ventilation" [27-minute running time] was made under actual fire conditions and goes into detail on all ventilating procedures as practiced by the "country's leading fire departments today."

These films should fill a long-felt want because there are no such films available nor have any been produced, it is said. According to Capt. Conlin, the Los Angeles Fire Department cannot make these films available on loan. However, he states that arrangements have been made through the Department's sound laboratory whereby prints of all their productions may be purchased at nominal cost. "Company Response" is available at $38.50 and "Ventilation" is available at $69.50. Anyone interested is invited to communicate direct with Mr. Al Lyons, Cinesound Company, 5968 Santa Monica Blvd.



Dayton Dedicates New Fire Station No. 18 With Ceremonies
Protecting a fast growing area on the eastern part of the city, this modern station houses a 65-foot aerial ladder truck and 750 GPM pumper, radio equipped. Fire Chief Joseph Kirby and Architect Emory Ohler and a proud fire department are taking bows!

Dayton Dedicates Station

One hour and thirty-two minutes after the City of Dayton, Ohio, and its Fire Department had activated its new No. 18 Fire Station, the company rolled on its first alarm. Consequently, when the Station was formally dedicated with fitting ceremonies that same evening, run No. 1 was already on the record.

Acceptance and dedication took place on Monday, August 28, and was participated in by all the City's officials and many citizens. The new Station, located on the Eastern city limits at 207 S. Smithville Rd., overlooks most of the city and protects a fast expanding mercantile district. The permanent active equipment consists of a Seagrave 65 ft. aerial ladder truck equipped with 200 gallon booster and a Seagrave 750 GPM pumper with 100 gallon booster tank. In conformance with Dayton's practice, both units have two-way FM radios. The apparatus quarters is also designed to house reserve apparatus which had previously crowded other fire stations. At present there are three pumpers and a ladder truck stationed in reserve.

The new house, which cost $150,000 and was financed by the ten-year capital improvement program bonds voted by the people in 1945, is one story and constructed of steel, concrete and tile. Walls throughout are tile from ceiling to floor. Double overhead automatic doors provide exits from the apparatus floor for four front line pieces of equipment. Living quarters, indirectly illuminated, are floored with rubber tile. A well ventilated dormitory, Captain's room, office, recreation area, kitchen, shower and locker facilities provide comfortable quarters for the twenty men assigned.

The station's modern kitchen would be the envy of many a housewife. The heating system is three-fold, consisting of blowers, radiators and radiant pipes, all gas fired. The radiant heat serves the office, dormitory and Captain's room. The alarm system, as in all Dayton stations, is a combination of public address, Gamewell and telephone. All other fire department essentials such as electric hose dryer, inside gas pumps, air compressor, battery charger, and movable hose rack are incorporated in the complete furnishings.

The Chief of the Dayton Fire Department, Joseph A. Kirby, and the Architect of the new Station, Emory J. Ohler, together with City Manager and Safety Director, Russell E. McClure, and Mayor Louis W. Lohrey, were speakers at the dedication ceremony. Following this occasion, the doors of the new house were thrown open and for a week the citizens of the City had opportunity to inspect and exult over this newest addition to their popular fire department.

Incidentally, an attractive little brochure, containing a history of the Dayton Fire Department as well as description of the new Station was distributed during the festivities.

Polo Dedicates New Station

Great strides are being made in developing the rural fire districts in the State of Illinois. New Fire fighting units and new equipment, with recruiting of additional firemen, bid fair to place that State well to the fore in that category of fire protection.

Latest evidence of the above is the dedication of the Polo Fire Protection District's new fire station, which took place May 25, 1950, less than two years from the formation of the District.

In March, 1948, two farmers, Frank B. Wilson and Howard H. Webster, and M. E. Schryver, city representative from the district as trustees, took over the task of developing the fire department for the area. It was a full year and over before they were to receive any money—money being a very important essential in organizing any fire protection force—from taxes. Yet the department had to be operated until the taxes came in.

Soon after taking over their duties, the Trustees asked the city to turn over to the district its fire fighting equipment, because of the fact that the city of Polo is included in the district. This was done, and by borrowing money on tax anticipation warrants, the organizers were able to operate the first department for the first year and a half.

Toward the end of the first year it was decided to purchase a tank truck. This was mounted on a K-6 International chassis and the tank and other equipment was built in Oregon, Ill. The tank carries 1200 gallons of water, a small amount of hose, some minor equipment, a 30-foot extension ladder and a small auxiliary pump for either filling from draft, or it can be used to provide small streams for grass fires.

About that time the trustees decided that other equipment on hand was antiquated and not too reliable, so it was therefore decided to purchase a 750 GPM pumper, which carries a proportioner for both foam and wet water.

The department also has two other pumpers, one built in 1939 on a Chevrolet chassis. This has a 500 GPM centrifugal pump. The other unit, built in

Top: Polo Fire Protection District Dedication Services, May 25, 1950. Doors Closed on New Station. Bottom: Apparatus Lined Up in Front of New Station

1930, has a rotary gear 500 GPM pump. This truck is equipped with a 2 KW light generator and will carry all first aid and salvage equipment.

After the department received delivery on its two new trucks it was confronted with the need of finding suitable quarters to house the equipment. It was therefore decided to build a new fire station. John McLane, Dixon architect was employed, plans were drawn and after bids were taken, work was started.

A favorable winter enabled the contractor to construct the building during winter months and it was finally finished in May of this year. The dedication was set for May 25, 1950, with the Lieutenant Governor of Illinois, Hon. Sherwood Dixon as the principal speaker. The ceremonies came off as scheduled.

The Polo Fire Protection District protects the City of Polo and an area of 120 square miles. The new station measures 53x80 ft., has two 22-foot overhead doors, electrically operated, providing ample room for movement of apparatus. The building also provides an office, meeting room, locker rooms with showers and toilet, and a work shop. The walls of the big apparatus room are lined with ceremic tile and instead of a hose drying tower the building is provided with Circul-Air hose dryer. The structure is of fire resistive construction and affords the Polo Fire Protection District one of the most modern and complete fire stations in the State. The total cost of the building was, $33,000.

Plans for the future call for two-way radio, latest self-contained air breathing apparatus, placing of small pumping units in remote and out-lying villages within the District, with direct wire communication to the main Polo station, and placing of some full time men at the latter.

(Acknowledgement: The editors express appreciation to correspondent Edw. M. Rhodes, and to Trustee M. E. Schryver, Sec.-Treas. of the District, for the information on which this account is based.)

Manila Gets Fire and Police Pension Law

Designed to raise the morale of officers and members of firemen and policemen in all Philippine chartered cities, a law known as Republic Act No. 541, has been signed by President Elpidio Quirino.

The new law provides for the granting of pensions to members of both forces in chartered cities who have rendered at least 20 years' "continuous and faithful service" and who shall be retired from the service if their applications for retirement are approved, and to those members who shall be retired automatically upon completing 30 years of continuous faithful service or upon their death after rendering at least 20 years of service but less than 30 years of service.

The law was sponsored by the Mayor of the City of Manila and prominent Fire and Police officials, including Manila Fire Chief Cipriano Cruz.

Pre-Fire Inspections Profit Winston-Salem Fire Fighters

The Winston-Salem, N. C., Fire Department is benefiting by making pre-fire inspections in the business and manufacturing districts of the twin-city on the year around basis, according to Fire Chief M. G. Brown. This procedure is to better acquaint the fire fighters with the property they protect.

The inspections, made usually in groups of about 25, are a part of the fire department's Training Program and are entirely separate from the Fire Prevention Bureau's inspections.

Lieutenant L. C. Williams, Fire Department Training Supervisor, plans and directs the inspections usually with the assistance of local company engineers, store managers or building officials.

Buildings in the "Fire Limits" and the larger manufacturing plants are the first to be inspected. The cooperation between the fire department and officials of the buildings inspected is proving excellent.

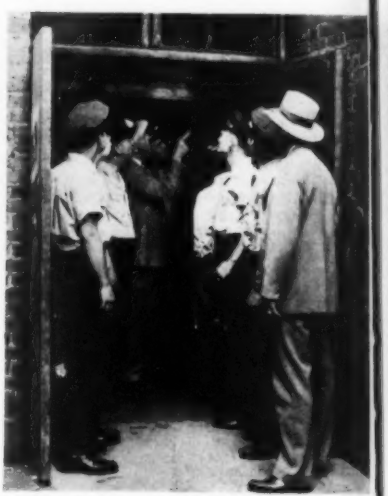
When possible, before an inspection is started, fire diagrams of the buildings are shown on a opaque projector. Explanations follow this procedure covering the first aid equipment, fire doors, amount of water available to fight fire, location of hazardous materials, connections and other exterior devices and auxiliary fire fighting equipment. This information is valuable to fire fighters. A fire diagram of each building inspected is given each man for further study in class rooms.

Chief Brown believes that classroom study after the inspection is just as important as the tour of the buildings. Black board drawings are taken from the individual sketches and discussed in groups in the daily classes in the stations.

Chief Brown says that "fighting fires before they start, has been a policy of the Winston-Salem Department for many years and is highly recommended by the Fire Underwriters. With the fine cooperation being received on these inspections and with the set-up of the Training Division in the fire department, more pre-fire inspections will be made and more firemen will participate in the inspections."

Western Electric Plant Gets Fire Preparedness Survey

Information gained from pre-fire surveys aids both Winston-Salem firemen and plant fire force. Here city firemen and plant officials check equipment. Left to right are Swope Acker, Western Electric Engineer; Fireman Reuben Chitty; Lieutenant L. C. Williams, training supervisor; Jessee E. Minor, company guard (holding spray nozzle), and Assistant Chief E. M. Dixon.



Inspections Are Combined with Training in Winston-Salem

Inspection of a downtown theatre by Chief M. G. Brown (pointing finger) and Winston-Salem firemen. The goal of the Training Division is to inspect all the buildings in the city.

Photo Taken at Malacanan Palace During the Signing on June 17, 1950, of Act No. 541, Granting Pensions to Policemen and Firemen of Chartered Cities

10-State Unit for Civil Defense

Appointment of an interstate committee to draft a ten-state civil defense compact in the Northeast was announced as September closed by Assemblyman Harold C. Ostertag, chairman of the

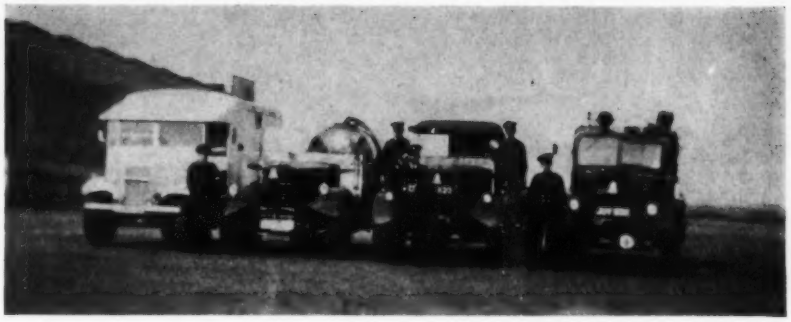
Eastern Conference on Civil Defense. Godron Tiffany, Attorney General of New Hampshire, was named chairman of the committee.

The pact would permit the ten states to provide mutual aid across state lines in case of a war emergency. Since it would require Congressional consent, the conference, which met at the Waldorf in New York City on September 21 and 22, urged Congress to approve the Lodge-McCormack resolution which would give consent in advance to such pacts.

Several New England States and New York have mutual aid agreements but the new plan contemplates a much broader compact backed by the necessary legislative powers.

The interstate committee will work with a representative of the Office of Civil Defense of the National Security Resources Board.

Besides Chairman Tiffany, members of the committee are: Orville S. Poland, representing Gov. Paul A. Dever of Massachusetts; Gen. Merritt A. Edson, Director of Civil Defense in Vermont; Col. Lawrence Wilkinson, director of New York State Civil Defense Commission; Harrington Adams, Deputy Attorney General of Pennsylvania; Nathaniel Haskell, speaker of the House of Representatives in Maine; Rep. Earle M. Byrne of Rhode Island; Roger F. Gleason, director of civil defense in Connecticut; State Sen. Raymond B. Phillips of Delaware, and Col. Leonard Dreyfuss, director of civil defense in New Jersey.



Motor Fire Apparatus of the Edinburgh, Scotland, Airport

Cloudburst Fails to Dampen Connecticut Conclave

The 67th Annual Connecticut State Firemen's Convention and Parade was held in New London, Connecticut, on August 17, 18 and 19.

The convention got under way with an executive committee meeting at fire headquarters on the 17th. The business session was held the next morning in the auditorium at Ocean Beach Park with approximately 1,000 delegates in attendance. Edward J. Kehoe, Chief, Fire and Accident Branch, New York Operations Office of the Atomic Energy Commission, was the guest speaker. His topic was "Atomic Energy and the Fireman." Governor Carter Bowles greeted the firefighters, and spoke of their vital part in civilian defense programs. Other speakers included Mayor Fred Benvenuti, City Manager Edward R. Henkle, and Fire Chief Thomas H. Shipman, all of New London; William C. Peck, Convention Chairman and President of the New London Volunteer Firemen's Association; Chief Leno Vescovi, U. S. Submarine Base, president of the New London County Fire Chief's Association; and Roger F. Gleason, state civilian defense administrator.

Capt. Bernard Fitzsimons, Sr., of Bristol, was elected president of the association. Other officers elected are: Vice-President, Chief James Grote of Chester; Treasurer, Battalion Chief Charles Brundage of New Haven; Secretary, John Moehring of Stamford; Chaplain, Rev. M. J. Thompson of Niantic. County vice-presidents were elected as follows: New London, Chief Thomas H. Shipman; Windham, Chief George Harper of Putnam; Tolland, Assistant Chief Howard Reynolds of Eagleville; Middlesex, Chief J. Franklyn Dunn of Middletown; Fairfield, Harold Gillespie of Stamford; Hartford, Robert Probst of West Hartford; New Haven, John W. Hoffman of Hamden; Litchfield, William Canty of Burrville.

The parade scheduled for Saturday afternoon with 10 divisions in readiness, started promptly at 1 P.M., but one hour later the skies opened and marchers and the thousands of spectators were drenched in what turned out to be practically a cloudburst. Several streets in the line of march flooded to a depth of over two feet of water. Most of the units stuck it out, and it was a completely drenched but determined group of firemen that completed the line of march.

WILLIAM C. PECK.

Pittsburgh to Get Modern Fire-Police Radio System

A modern combination fire and police alarm radio system is to be installed in Pittsburgh, it is reported by Blaw-Knox Company, which will supply the tower, to support the two antennas.

Both fire and police broadcasting operations will be operated and controlled remotely from the respective downtown headquarters. Fire control will emanate from headquarters in the City-County Building. The Fire Radio Alarm System is designed for city coverage only but will bring many advantages. It will give the Fire Alarm Bureau and Department its own complete radio system, including the dispatch of fire-fighting apparatus. As radio equipment is added to mobile units, the department will have control of all such equipped apparatus on the fire ground and while responding to and returning from fires.

The radio tower, located in Grandview Park, Mt. Washington, a high point in the County, stands 125 feet high. The fire antenna will be of the colinear type for broacasting on the 156 mc band; the Police antenna will be a coaxial type and will broadcast on the 30-40 mc band.

Protecting Edinburgh's Airport*

The Edinburgh Airport Station of the Ministry of Civil Aviation Fire Service has the task of protecting that Scottish airport against crash and other fires. The regular personnel at the Station numbers twelve. They operate the main motor fire apparatus, consisting of three crash trucks. Two of these can produce aproximately 1,000 gallons of foam per minute, and the third, a CO_2 appliance, is capable of delivering 11,500 cubic feet of gas in eight minutes.

In the event of serious emergency, the airport force could draw on the resources of the South Eastern Fire Brigade, which is responsible for the protection of the City of Edinburgh and the seven adjoining counties of S. E. Scotland, with a total population of somewhere around 750,000.

Statistics relating to this Brigade are: Personnel, Regular 295; Part-time, 307; Fire Stations, 32; Pumpers, 19; pump Escapes, 6; Aerial ladders, 3 (1-105 ft. and 1-100 ft. steel, and 1-85 ft. wood). Tenders, 25; Water Tenders, 5; Salvage Tenders 2; Rescue Tenders, 1; and Trailer Pumps 31.

—JOHN MILLS.

*The author, Fireman John Mills, was formerly a member of the British Army Fire Service and before that he was in the South Eastern Fire Force, based on Edinburgh. He is presently stationed at the Edinburgh Airport Station. He and his mates, he states, are avid readers of FIRE ENGINEERING.

Canadian Forest Fires Cast Broad Smoke Pall

Described by officials as the worst fire situation in over 20 years, scores of brush and forest fires in northern Alberta and British Columbia were being fought by hundreds of tired fire fighters during the latter half of September.

The smoke arising from these and other Canadian fires reportedly was the cause of a pall of dusty haze that spread for 2,000 miles over the eastern part of the United States as far south as Miami, Florida. This haze reduced visibility, slowed up flying, necessitated flood lights being turned on for afternoon baseball games and otherwise inconvenienced residents of the affected areas.

Near Edmonton, more than 100 forest fires were reported on September 25 sweeping through Northern British Columbia and Alberta, destroying valuable timber. Sixty fires raging out of control were reported in a 300-mile stretch of unsettled country near the Alaska Highway. The size of the largest was estimated at 120 miles wide by 150 miles long. "It is impossible for the few people in the B. C. fire area to fight the flames" said an operations officer of the Northwest Air Command, who flew over the burning region. "All they can do is pray for rain," he added. "It would take three days' solid rain to stop the fires."

Rainfall was said to have held down fires in some areas, and at the same time intensified the smudge. In Edmonton, a blanket of smoke 4,000 feet thick dimmed the city.

MARS SIGNALS for F

To Meet The Demands of Fire Officials

A NEW SIREN BY MARS

Designed to Provide a Superior Warning Sound With Low Current Demand and Long Life

This Siren Was Displayed at the IAFC Convention, San Francisco, September 12 - 15.

With special GENERAL ELECTRIC motor designed jointly by GE and MARS engineers. Develops 1/8 horse power, insuring quick acceleration to peak speed and sound. Oversized brushes and commutator insure long life and low maintenance. Sealed ball bearings and efficient windings provide low current drain. Available in 6 and 12 volts in 6, 7 and 8 inch sizes.

FULLY GUARANTEED FOR FIVE YEARS

MARS SIGNAL

5737 W. DIVISION ST.,

ALSO MANUFACTURERS OF THE FAMOUS

GUARDING THE LIVES OF

We shall appreciate your mentioning FIRE ENGINEERING *when writing advertisers*

FIRE APPARATUS

For Greater Safety in Modern Traffic

A NEW LIGHT BY MARS

TWIN BEAM—A Two Way Wide Angle Oscillating Warning Signal Light

This Light Was Displayed at the IAFC Convention, San Francisco, September 12-15.

When answering calls the front light sweeps the street and intersections from side to side far ahead of the apparatus warning all traffic of direction apparatus is moving. This powerful beam of Red Light can be plainly seen by traffic approaching intersections *ahead* of you long before you reach the crossing. When apparatus is standing rear light can also be used to provide protection for men and equipment from *front, rear and both sides.*

FULLY GUARANTEED FOR FIVE YEARS

LIGHT COMPANY

CHICAGO, ILLINOIS

MARS FIGURE 8 OSCILLATING WARNING SIGNAL LIGHT

MILLIONS FROM COAST TO COAST

Short Cuts and Gadgets

IDEA FOR OUTDOOR HOSE DRYING TOWER

From Capt. F. A. Taccarino, Engine Co. 1, Ocean City, N. J., Fire Department, comes this idea for an outdoor hose tower which, he says will fit the needs of departments not having a tower or electric hose dryer.

We are happy to note the Captain is an avid reader of FIRE ENGINEERING and says he profits by the constant reference to the valuable information contained in its pages. Short Cuts and Gadgets feature he says, impelled him to send in his idea, illustrated herein.

According to Captain Taccarino, the local utility company will furnish and erect the pole and cross arms. The other materials needed, he says, are triple blocks or double blocks, a short piece of chain and short piece of 1½ in. pipe. Of course the construction can be altered to suit individual wishes.

Editorially, we might comment that the idea should find wider adoption in the warm climates than the colder ones where indoor hose drying is preferable for year 'round.

* * *

MORE ON LOCATING WINTER HYDRANTS

Gimlet-eyed Contrib' Perry O. Popp, of Rochester, has spotted a method of covering fire hydrants. He writes as follows: While on a January trip, I noticed that the City of Lockport, N. Y., is using a type of hydrant cover which I have never seen before. This consists of what appears to be an inverted ash can, painted red, and marked "FIRE HYDRANT, NO PARKING." These are placed over the hydrant, obviously to prevent snow from clogging or blocking the hydrant."

He adds "I did not stop to inquire what benefits there were (from this idea) but from observation, it is apparent that by lifting off the cover after a heavy snowfall the hydrant would offer no difficulty to engine company men in their connection of lines. The only drawback to this in my opinion," he continues, would be the fact that in the event of an extra heavy snowfall there would be no indication as to the location of the hydrant for the responding companies."

He concludes with this observation. "I believe the method in use by the towns in the vicinity of Rochester, and a system which is probably in use throughout the country, namely, placing steel markers for such height that no snowfall will cover them, and bearing cats-eye reflectors, is the best means of locating hydrants during the winter season."

It should be pointed out that not only is this indicator method of identifying fire hydrants widely employed, but a similar system is used to facilitate locating wells and surface or flush hydrant connections. In this type identification a post is located nearby, which bears the numerals indicating the number of feet distant the hydrant or well is from the marker.

* * *

SALVAGE HINT—A GUIDE FOR WATER

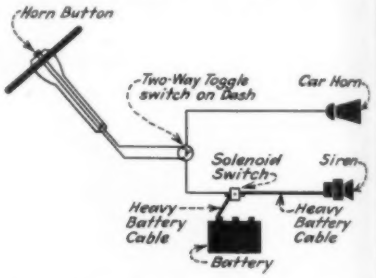
John J. Gallagen, Minneapolis, Minn., a previous contributor to "Short Cuts & Gadgets," comes across with an idea for handling water during salvage operations. Brother Gallagan was once a member of the Minneapolis Fire Department Salvage Corps (which was terminated in 1939), and during his time did his stint with broom, squeegee and mop. "Perhaps you know how hard it is sometimes to get the water out of buildings, to get it to run in the right direction and toward the drain, elevator shaft, or stairs which may be the shortest and quickest way to get it out of the building" he writes. He believes the idea advanced in the accompanying diagram illustrates how the question of troublesome water can be handled more easily. "It would be inexpensive," he says, "inasmuch as old, useless hose could be utilized for the purpose. The guide could be used in all kinds of spaces and for various purposes, heading the water in the direction you want it to move instead of its coming back behind you."

Thank you Brother Gallagen.

* * *

STILL MORE ON THE HORN-SIREN SUGGESTIONS

Back in the March, 1950, issue we published a suggestion from Lieut. J. E. Haley, Engine 9, Utica, N. Y., for wiring up the siren and horn buttons on a rig to facilitate blowing the siren.

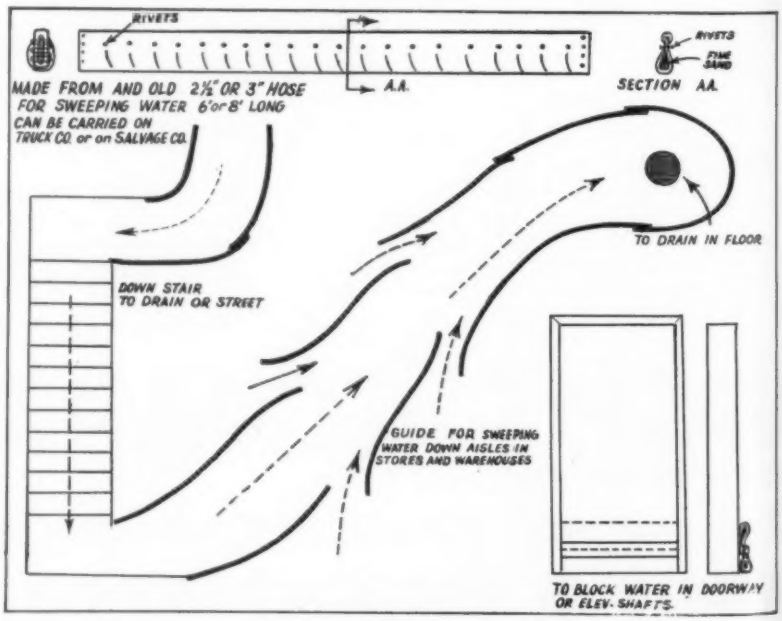


Other ideas for the same improvement subsequently were advanced. Now comes a communication from Fire Chief Herbert T. Henderson, Cushing, Okla., Fire Department, further attesting to the idea.

For those who failed to get Lieut. Haley's suggestion, here's what Chief Henderson has to say:

"I have used this suggestion on my car for the last three years—but, with one solenoid switch in the siren wire (as recommended by Lieut. Haley, if we remember correctly) you will burn out the contacts of your horn button."

The Chief then tells us he is very glad Lieut. Haley introduced this idea and sends along the diagram of his method of wiring. Gentle reader, now you can take your choice.



FALSE ALARMS

Breaking the News

Ginsberg had a remarkable run of luck in a dice game one day and piled up $3,000 in winnings. He went to the well once too often, however, shot the whole $3,000, and lost. The shock was so great that he promptly died of heart failure. His friend Solomon was designated to break the sad tidings to Mrs. Ginsberg. He found her baking a strudel in the kitchen.

"Your husband was in a little crap game this afternoon. Mrs. Ginsberg," he said diffidently by way of a start.

"The loafer," said Mrs. Ginsberg, continuing with her baking.

"He was ahead $3,000," continued Solomon, "but he bet it all at one time and got cleaned out."

"Three thousand dollars," screamed Mrs. Ginsberg, now thoroughly aroused. "He should drop dead."

Solomon nodded gravely. "He did. Good day, Mrs. Ginsberg."

It was one of mother's busiest days. Her small son, who had been playing outside, came in with his pants torn. His mother helped him change to another pair, but in an hour or so he was back, his pants torn again.

"You go right upstairs, remove your pants and mend them yourself," his mother ordered.

Some time later she thought of him and went upstairs to see how he was getting on. The torn pants were lying on a chair but there was no sign of Johnnie. Returning downstairs she noticed the cellar door was open, and she called down, loudly and sternly, "Are you running around down there without your pants on?"

A deep voice answered, "No, madam, I'm reading the gas meter."

"Your grandfather is a little deaf, isn't he?"

"Just a little! Yesterday he conducted prayers kneeling on the cat."

Ode to Sally

Here lie the bones
Of Sally Cleek
Her will was strong,
But her won't was weak.

A young debutante, looking round the florist shop, for something she wanted, spied an old fellow trimming a plant.

"Have you any passion poppy?" she inquired.

The old fellow looked surprised and exclaimed: "You just wait till I get through pruning this lily."

The keeper of the local inn, which had a reputation for its very strong brew, was awakened at midnight by a loud knocking on the front door. Putting his head out of the window, he shouted:

"Go away! You can't have anything to drink at this hour."

"Who wants anything to drink?" was the response. "I left here at closing time without my crutches."

Not a Fire Buff

A friend called upon a guest at a hotel, knocked, and asked him to open the door.

"Can't, door's locked," the voice from within announced.

"Well, unlock it!"

"Can't, have no key!"

"Great Scott, man! What will you do if there's a fire?"

"Can't go."

Son: "Father, what's the difference between a gun and a machine?"

Dad: "There's a big difference. It's just as if I spoke, and then your mother spoke."

Spot Check

Little Willie stood before the cage containing a leopard. After a few minutes of intent staring, he turned to his mother, "Is that the dotted lion that everybody wants Dad to sign on?"

The lowly cub reporter who was assigned to cover the class plays of the high school came in for his share of literary fame when the following appeared in his write-up:

"The auditorium was filled with expectant mothers eagerly awaiting the appearance of their offspring."

Guest (phoning down from his hotel room): "Is this the desk clerk?"

Clerk (in bad humor): "Well, what's eating you now?"

Guest: "That's what I'd like to know."

Elsie: "What kind of husband would you advise me to get, Grandma?"

Grandma: "You just leave the husbands alone and get yourself a single man."

The old man neglected to assist his wife out of the street car.

"John," she said, "You are not so gallant as when you were a boy."

"No," he replied, "and you are not so buoyant as when you were a gal."

Nothing is more restful than a warm, crackling fire in the living room—if you have a fireplace.

A one-ring circus was visiting a town in the hills. The folks there recognized all the instruments except a slide trombone.

One old settler watched the player for quite some time, then said, "There's a trick to it. He isn't really swallowing it."

Then there was the girl who was so dumb she thought assets were little donkeys.

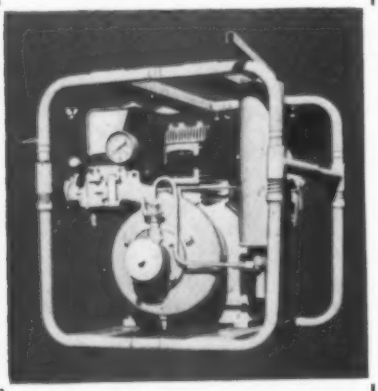
"In the Excitement I Forgot How to Get Out of It!"

Chief R. M. Wilson

SUGGESTS HALE FZZ

for

EVERY FIRE TRUCK



Above — This frame-mounted FZZ (with carrying handles turned in) can be easily carried to source of water which truck cannot reach, for refilling booster tank or for fighting fire direct. Unit is also available mounted on two wheels or on rubber-cushioned steel channels.

Chief R. M. Wilson of Monroe City, Missouri, suggests that all Fire Trucks should have a Hale type FZZ portable pumping unit . . . He writes: "I want to tell you how pleased I am with this FZZ pump. We received it May 27th. On May 29th I was compelled to use it during a bad rain storm as our large pumper was unable to reach water supply. We put the little pump at a pond, used 500 ft. 1½" hose lay-out, and saved this farmer almost $2,000.00. **The FZZ gave a nice fire stream. The motor started on the first pull in a downpour of rain. Not one time did it stop. We used it for almost 2 hrs. Had not we had this portable pump, there was no way we could put out this fire. I think all fire trucks for Town or Country should have one or more.**"

Above—FZZ Pumping solid stream and fog.

With a ready-for-use Hale FZZ you can fight fires not only with solid stream and/or fog, but also with foam —a valuable weapon against gasoline truck fires.

The easily portable FZZ can be mounted in any apparatus, making it possible to fight fires while apparatus is in motion, using booster tank for source of water. CAPACITY 60 G.P.M. at 90 lbs. pressure; 150 G.P.M. at 30 lbs. pressure; ample reserve capacity.

Ask for demonstration; no obligation.

Write today for FZZ FOLDER to:

HALE FIRE PUMP COMPANY

CONSHOHOCKEN, PA.

Fire Pumps in All Standard Capacities

Mutual Aid

(*Continued from page* 816)

Equipment—Major

Acetylene cutting torches—13
Life saving boats—6
Deck pipes—29
Deluge sets (portable)—35
Electric generators (portable)—66
Electric generators (mounted)—6
Inhalators—61
  Extra tanks—198
Resuscitators—16
  Extra tanks—7
All service masks—415
Self-generating masks—25
Oxygen masks—18
Air masks—21
Portable lift pumps—10
Salvage covers—486
Foam
  Mechanical—917 gals.
  Chemical—11,400 lbs.
Fog Nozzles—359
  1½ inch—194
  2½ inch—161
  500 gpm—4
Grappling hooks—21
Pump tank extinguishers—427

Note: Additional large supplies of equipment are available from the county's public utility companies, the two railroads serving the county, and the oil and industrial companies. Inventories of most of this equipment are maintained in the County Fire Control Center, together with inventories of resources of hospitals, contractors, military and other agencies that might be required for rescue, demolition and medical assistance.

Details of Westchester's County Fire Control Center

Although Westchester's mutual aid system came into being in 1928 with the creation of the Fire Chiefs' Emergency Plan, it was not until the county organized for World War II that the County Fire Control Center was established. This essential, which filled the one serious remaining need in the Emergency Plan's mutual aid program, was located in Fire Headquarters of the White Plains Fire Department in White Plains, the County center, by courtesy of that city's officials and the heads of its Fire Department.

It occupies a room on the top floor of Fire Headquarters, adjoining the Fire Alarm Office. It is operated on a twenty-four hours basis by dispatchers of the Fire Department, who handle all the normal mutual aid business. It should be explained that to save them needless detail, and to insure that no mutual did emergency will detract from their duties and obligations to the White Plains Department, the Fire Chiefs' Emergency Plan has a staff of volunteer dispatchers, nearly thirty in number, who serve turns in the Control Room. These men are recruited from the ranks of the Plan, most of them being ex-officers of fire companies and familiar with the County fire protection set-up. Some of these men, including deputy coordinators of the Plan, are within a few minutes of the Control Center and upon notification of an emergency, they immediately report to the Control Room and take over mutual aid dispatching. These volunteers also keep the daily records and, through a Chief Dispatcher, maintain the facilities of the Control Room, some of which we explained in the following.

Control Center Equipment

The most commanding object in the Control Room to strike the visitor is the large panelled control board which occupies most of the west wall of the room. This board, measuring ten-feet, nine inches by three-feet, eight inches, has six panels, each approximately twenty-two inches wide and and thirty-five inches high. These panels are divided into vertical columns and ruled off into sections horizontally. In one column are given the number and name of each county, the next columns are headed, at the top, engine; ladder; rescue; patrol and miscellaneous. To the right of these are two more vertical columns headed respectively "COVER" and "LOCATE."

Dotting the entire board are round tags of various colors, hanging on small brads. These vari-colored tags are all numbered and some bear simple designs.

The colored tags are all white on the reverse side, and in addition to numerals, each bears on the reverse a small insignia or key which like the face of the tags, identifies a particular kind and unit of apparatus.

The tags are arranged opposite each community name and number in their respective columns. Only the panel sections marked "COVER" — "LOCATE" are usually minus any tags. It is only when mutual aid operations are in force that tags find their way into these columns.

In addition to the tags designating the major apparatus, as indicated, there are special tags for special equipment. At the extreme left of the operating panel is a smaller divisional panel bearing rows of yellow tags, numbered, hung on brads, and also bearing simply key designs. These are used to indicate apparatus "covering" or "locating."

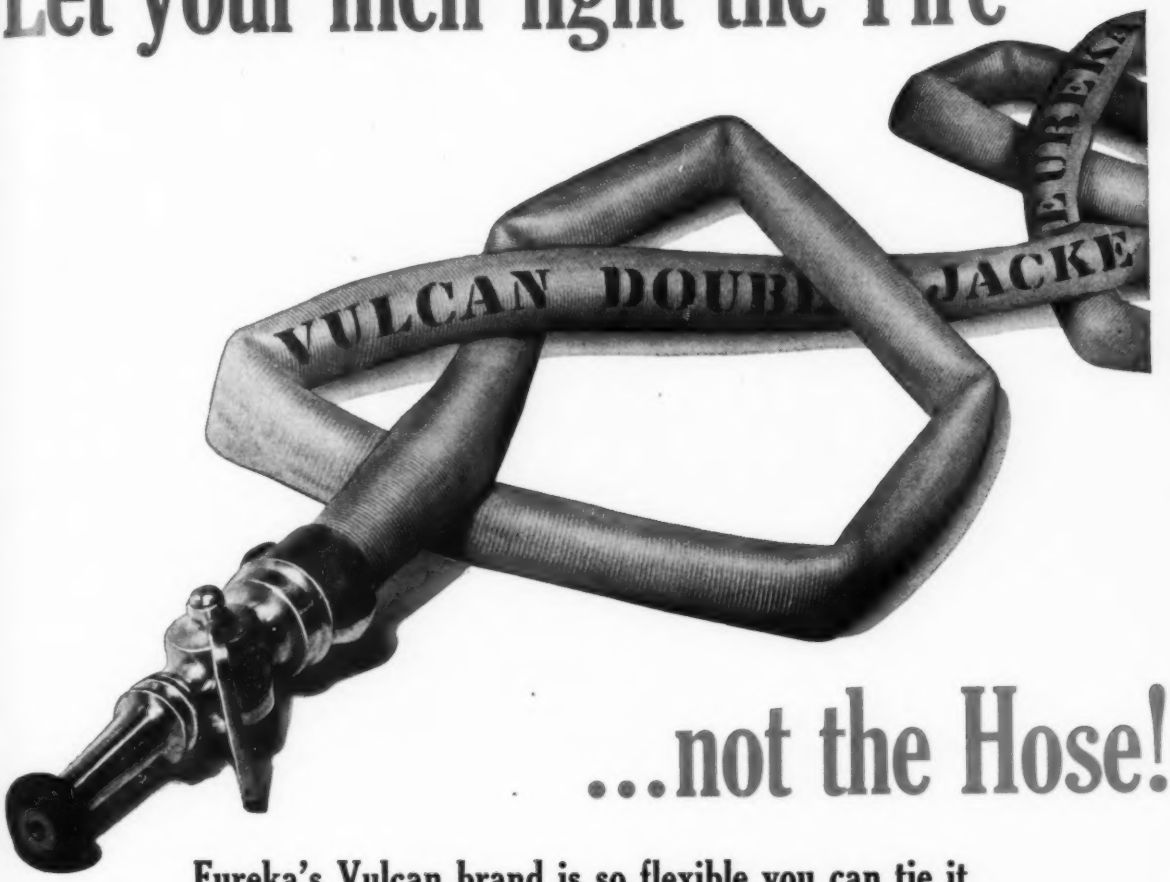
By means of these simple tags which were made out of common merchant's price tags, any number of mutual aid operations necessitating movement of apparatus can be visualized by the dispatchers. The board also shows at a glance the entire fire fighting strength of the County in terms of apparatus available, in reserve, and out of commission.

To the right of the main board, is a large scale map of the Bronx with all fire stations, battalions and divisions indicated on it. This is to facilitate response to any sections of that Borough.

On either side of the entrance into the room on the south wall, are panels. One contains a detail map of the Westchester County Airport, which is protected by several volunteer fire departments of the county and in part by a company of the town of Greenwich, Ct., department. By mutual agreement among the volunteers, the paid chief of the White Plains Fire Department, or whatever officer may be in charge at the time of the incident, assumes command of airport emergencies. The other wall space is occupied by a bulletin board, on which are posted the names and records of attendance of the volunteer dispatchers, and other pertinent data.

The west partition, opposite the operating board, has an entrance into a spacious closet and wardrobe on either side of which are additional panels. One mounts a large scale diagram tabulating the entire county's fire forces, including manpower and small major equipment as well as apparatus, hose, etc. Smaller reproductions of this diagrammatic tabulation are mounted in all county fire houses. On the other side of the entrance is a large scale map, in colors, of the major and minor arteries showing the police traffic plan in effect

Let your men fight the Fire



...not the Hose!

Eureka's Vulcan brand is so flexible you can tie it in a knot— permits greater flow, easier handling

Here's the lighter, more flexible hose that lets a fireman move *faster* with *less* effort. It's easier to carry or drag, cuts writhing and whipsawing to a minimum ... yet is just as strong and durable as any fire hose on the market!

Eureka's hose experts have built Vulcan with a jacket of cords that are lighter, smaller than those in standard hose, *without* sacrificing resistance to bursting. As in other famous brands of Eureka Fire Hose, Vulcan's Balanced Weave and Controlled Curing eliminate excessive stretch and warp. Exclusive "Formula X" provides mildew-proofing.

1875-1950
DIAMOND ANNIVERSARY

"For greater protection to life and property"

EUREKA FIRE HOSE

Division of United States Rubber Company

195 HUDSON STREET • NEW YORK 13, N. Y.

during World War II for evacuating New York, and for response by fire forces into the city. Beyond this map is a panel used for civilian defense data, such as signal systems in use throughout the county for sounding air raid alerts, etc.

The entire north wall is taken up by two enlarged maps of the county; one shows the upper half and the other the lower areas. These maps give the locations of all fire houses, and apparatus by name, number and type. All streets, roads and parkways are indicated, as are all bodies of water. An additional triangulation map for locating fires anywhere in the county is also mounted on the west wall, over the police traffic chart. This latter is used frequently in plotting forest and brush fires in the upper part of the county.

Occupying the center of the room, facing the operations board, is a desk with an adjoining table and filing cabinet. The desk mounts several telephones, two having visual lamp signals. Prominent on the desk is the Journal in which all records are kept of daily operations, and various other relative data. Under the glass top of this desk are mounted important data such as names and telephone numbers of all fire departments and chiefs, etc., and special notices.

One drawer of the desk contains cards, each representing a community, on which are enumerated all essential data requisite to the particular community and its fire department. These list, in addition to other information, the companies designated to respond to that community on second, third and greater alarms.

The tell-tale filing cabinet contains metal card slides under various apparatus classifications, Engine, Ladder, Rescue etc., and pertinent facts about particular apparatus, giving the name of the maker, age, equipment, etc.

Telephones, Teletype and Radio Used

Perhaps the most important adjunct in the room are the telephones. There are four instruments on the dispatcher's desk, one connected through the Fire Alarm Office switchboard; one having a branch phone on the Alarm Office operator's switchboard, the other being used for outside mutual aid calls only. A fourth instrument is directly connected to the New York Central's Communication System. Through this dial phone, the Control Center dispatcher can reach the New York Fire Department directly, or talk with any point on the entire New York Central System.***

The control center is connected through the county police with the county's teletype network, and with existing police radio installations.

In one corner of the room stands a small cabinet on casters. This contains various maps and charts pertinent to mutual aid operations. They show the parkways and the fire district divisions to be covered by respective fire companies. There are also detail maps of the railroad's right-of-ways, with all overpasses, underpasses and access points indicated. Incidentally, the railroad telephones like those along the parkways, are all charted and mapped to play their part in emergencies. By means of these charts, fire apparatus can be dispatched to any designated spot, such as "Pole 150" along the right-of-way.

These maps are carried on Hartshorn rollers, in a special rack in the closet. These show at a glance the inventory strength of all neighboring counties, and of the New York Fire Department. This anteroom also contains record files, a duplicating machine, printed matter and stationery relating to the Emergency Plan.

The stencils and mailing data for the Emergency Plan are contained in a metal filing cabinet, in a corner of the Control Room. This also holds the supplies of educational, defense, and other bulletins issued by the organization.

An electric clock and supply of chairs completes the furnishings of the Control Room, except for a shelf along the west wall, under the inventory chart, which has provision for civil defense phones.

All furnishings in the Control Room were donated either by the White Plains Fire Department or members of the Plan. The operations Board with its neat lettering and expert craftsmanship was made by a White Plains fireman, now a Lieutenant in that force. The fluorescent lighting fixtures came from the New York World's Fair. The entire ensemble cost perhaps $100 and goes to prove that any County or other area can have a Fire Control Center if the will is there.

***Additional phones are being added to directly connect the County Fire Control Center with the Civilian Defense Headquarters and other points.

H & H FIRE APPARATUS

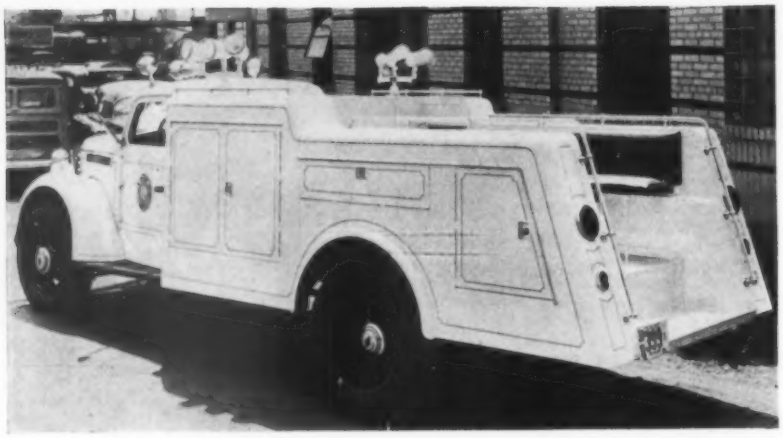


Photo shows 10,000 watt A.C. generator equipped truck—two clusters of lights 1,500 watts each on sides—body carries men and salvage equipment.

Modern 10,000 WATT A.C.

LIGHTING TRUCK

MODERN fire fighting demands modern tools and methods. If you have struggled along with a makeshift homemade lighting truck up to now, let us show you how fine a really modern job, designed to meet your particular needs, will look.

BEFORE you buy any apparatus, it will pay you to talk to us and let us show you how we can design and build apparatus that you can be proud of and call "your own."

Further information or demonstration on request.

H&H TRUCK TANK CO., INC.

Manufacturers of Fire Tank Trucks and Emergency Apparatus

725 TONNELE AVE. JERSEY CITY, N. J.

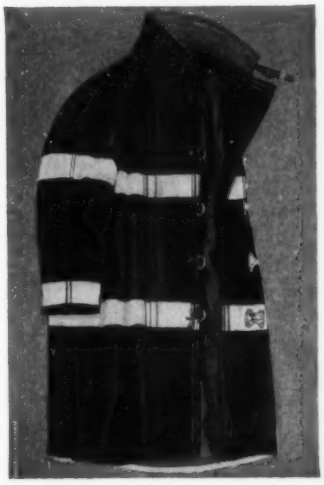
Friend of the Firefighter!

MIDWESTERN
PROTECTIVE CLOTHING

THE Original

Mackinaw Striped Safety Coat

Reduces Accidents — Saves Lives



Several years ago, Midwestern developed the *original* striped safety coat. The highly visible stripes are moulded to and vulcanized as part of the material. Thousands of Midwestern Safety Coats are serving fire departments throughout the world. Service records prove that these garments not only offer high safety visibility, but have the qualities required to withstand the rough usage required in your hazardous work of protecting life and property against fire.

All Midwestern Safety Coats have the moulded-in yellow stripes which are a part of the garment and not painted and sewed on. The *original* Midwestern Safety Coat will give you trouble-free protection and dependable service.

• PROTECTION
• COMFORT
• SERVICE

Largely through superior quality, design, fabric texture and advanced features, Midwestern is a leader in the field of firemen's clothing. All Midwestern specialized protective clothing have been developed from long years of experience . . . and each detail of design adds to the service, comfort, convenience and long wear of the garment.

Regardless of climate and performance demanded, you will find a fabric to exactly suit your needs in our vast selection of crude rubber and fabric materials. The softness and flexibility of the high-grade materials used is your assurance of long service and real protection. For full information on our complete line, see your Midwestern dealer. A letter to the factory will also bring you material samples for your inspection.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN MFG. CO., Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Coats**

WHEAT *FIREMAN'S* SPOTLIGHT

Redesigned to FIRE DEPARTMENT SPECIFICATIONS

GIVES 10 TIMES MORE LIGHT

*Pays for Itself in 3 Months**

by Eliminating Dry Batteries

½ MILE BEAM — 25,000 CANDLEPOWER — 1,500 HRS. OPERATION

ALL AT LOWER COST

Small—Compact—Weighs only 95 oz. complete. Slender design of battery allows light to be conveniently carried at side or worn with shoulder strap to permit free use of both hands. Positively non-spillable in any position—Simply recharged without opening or taking apart the lamp.

RECENT DEVELOPMENTS

NEW FIREMAN'S RED CASING — 15 TIMES STRONGER THAN BEST QUALITY HARD RUBBER

BUILT-IN WINDOWS SIMPLIFY PERIODIC WATERING

STATE OF CHARGE EASILY DETERMINED

WITH NEW WHEAT CHARGE INDICATOR

RECHARGEABLE BATTERY REPLACED BY TURNING THREE SCREWS ONLY

COMPLETELY SEALED WATERPROOF LIGHT SWITCH

STANDARD CHARGERS ALSO CONSIST OF SINGLE AND MULTIPLE UNITS FOR CONNECTION TO 115 VOLT 60 CYCLE CURRENT

Accessories include Shoulder Strap — Wire Stand — Mounting Bracket

***FOR ADDITIONAL INFORMATION ON WHEAT FIREMAN'S SPOTLIGHT AND ECONOMY OF OPERATION CONSULT YOUR DEALER OR WRITE**

KOEHLER MANUFACTURING CO., MARLBORO, MASS., U. S. A.

When ordering apparatus, be sure to specify WHEAT LAMPS

I. A. F. C. Conference

(*Continued from page* 820)

Utah, included the following concerns:
Motorola, Inc.
Fire Engineering.
E & J Manufacturing Co.
American Elkhart Company.
The Casewell Co.
Mack-International Motor Truck Corp.
J. J. Lawton.
Food Machinery Corp.
Mine Safety Appliance Co.
American District Telegraph Co., Inc.
American City Magazine.
Federal Enterprises, Inc.
The Seagrave Corp.
J. H. Emerson Co.
The Circul-Air Corp.
Radio Corporation of America.
L. N. Curtis & Sons.
Scott Aviation Co.
American Marsh Pumps.
American LaFrance Foamite Corp.
United Air Lines.
Hall-Scott Motor Div.
Western Fire Equipment Co.
Akron Brass Mfg. Co.
Rensselaer Valve Co.
Randolph Laboratories, Inc.
Quaker Rubber Corp.
Victorlite Industries, Inc.
The Four Wheel Drive Auto Co.
Rich Manufacturing Co.
The American Rubber Mfg. Co.
Atlas Safety Equipment Co., Inc.
The Firewater Co.
Dry Chemical Pacific.
Coast Manufacturers.
Peter Pirsch & Sons Co.
Waterous Co.
F. E. Meyers & Bros. Co. (Pacific Pump & Supply Co.).
Bi-Lateral Fire Hose Co.
The Fabric Fire Hose Co.
Eureka Fire Hose Co.
F. N. McIntire Brass Works.
Aquadyne Corp.
Stephenson Corp.
P. E. Van Pelt, Inc.
C-O-Two Fire Equipment Co.
Shepherd Manufacturing Co.
Rockwood Sprinkler Co.

Recreation

A very full program of recreation and entertainment was provided by the local convention committee, under the sponsorship of Chief Edward P. Walsh of San Francisco.

On Monday a luncheon meeting was held by the Ladies Auxiliary of the Pacific Coast Inter-Mountain Division of the Association for all the visiting ladies.

The hospitality rooms of the San Francisco Fire Department which were open each day from 7 P. M. to 11 P. M., at the Fairmont and Whitcomb Hotels, were popular and busy places. They proved convenient rendezvous for the guests of the conference.

The luncheon and fashion show for the ladies held in the Rose Room of the Palace Hotel on Tuesday proved an outstanding success, judging from the vast number of guests who were present.

So popular was the ferry boat tour of San Francisco Bay that the boat had to make two trips. The first left at 2:00 P. M. and returned and again left the pier at around 4:30 P. M.

On Wednesday night, a motion picture program at the High School of Commerce proved an interesting and instructive session. Chief Jay W. Stevens,

Dependable FIRE PROTECTION...

STARTS WITH ANSUL water-tight CONSTRUCTION

CUT AWAY VIEW, ANSUL MODEL 20-B

The new, improved Ansul Model "B" Extinguishers have the greatest fire-killing ratings* ever attained by hand portable fire extinguishers. In addition, WATER-TIGHT CONSTRUCTION, (exclusive with ANSUL) has resulted in far greater dependability than any other dry chemical extinguisher.

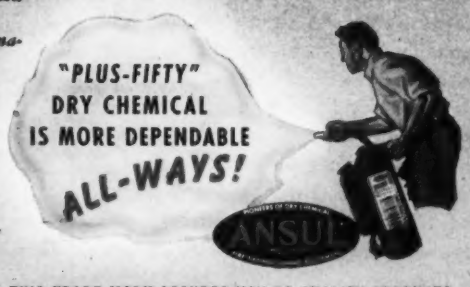
In fire protection equipment, the best is none too good. Accordingly, Ansul engineers conduct continuing research for improving Ansul Extinguishers and Dry Chemical. Ansul Quality has set a high standard for newcomers in the dry chemical fire extinguisher field. This unparalleled standard of quality is constantly being raised by Ansul research and development.

Send for File No. 614. You will receive a variety of helpful printed matter. Included is our latest catalog which describes Ansul Extinguishers of all sizes — from the small Ansul Model 4 to Ansul Piped Systems and Ansul 2000 lb. Stationary Units.

**Factory Mutual Laboratory Reports of Examinations and Tests.*

EXCLUSIVE FEATURES

- Patented Nozzle assures most effective stream pattern . . . Best results by inexperienced operators.
- Special packings in Nozzle and other parts exclude water.
- Corrosion resistant construction throughout.
- Easy on-the-spot Recharging (No tools needed).
- Quick, *positive* puncture operation.
- Special cartridge guard protects cartridge . . . rugged construction throughout.
- Ansul *"PLUS-FIFTY"* Dry Chemical used exclusively.
- Field tested by thousands of satisfied customers.



ANSUL
CHEMICAL COMPANY
FIRE EXTINGUISHER DIVISION
MARINETTE, WISCONSIN

DISTRIBUTORS IN ALL PRINCIPAL CITIES IN THE U. S. A., CANADA AND OTHER COUNTRIES

THIS TRADE MARK ASSURES YOU OF QUALITY PRODUCTS

Executive-Secretary of the Association, presided.

The tour of San Francisco for the ladies, with a luncheon included, was very popular. This was held on Thursday at 10:00 A. M.

At noon, those attending the convention sessions were treated to a buffet luncheon at Larkin Hall of the Civic Auditorium.

Annual Banquet

The annual banquet held at the Fairmont Hotel was an overflow affair. The principal speaker was the Hon. Elmer E. Robinson, Mayor of San Francisco.

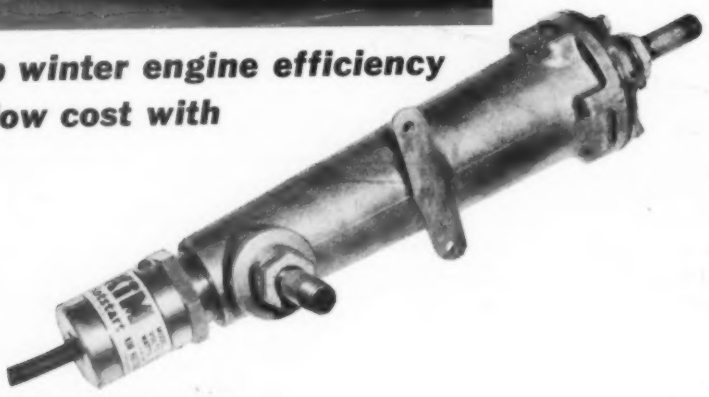
Friday noon, when the conference was concluded, the ladies were taken for a tour of the San Francisco Peninsula. Then they joined the men in either of two tours, one of San Francisco and the other of East Bay with a stopover at the home of Jay W. Stevens, at Orinda. Over 700 guests overflowed the grounds of the Stevens' home where they were treated to refreshments and to Hawaiian music and dancing.

Friday night, those who remained over had the novel experience of enjoying a Cioppino Supper, as guests of the San Francisco Fire Department.

On Saturday evening, a great number of the delegates and their wives, who were still in the city, attended the annual Pageant and Ball of the San Francisco Fire Department, and saw a very excellent show.

4 models quickly installed

Top winter engine efficiency at low cost with



KIM Hotstart

electric pre-heater... for Gas or Diesel engines

KIM Hotstart is a patented pre-heater for gas or diesel engines. Plugged into the electric circuit at the end of the run, KIM draws cold water from the engine, heats it, forces it back into the engine at another point, keeps the engine warm when not in use.

For all kinds of motor vehicles — autos, trucks, fire engines, tractors, buses, stationary engines, diesel locomotives.

Sold and installed by International and Mack dealers, leading automotive suppliers. See your dealer or use coupon for literature.

Provides quick, easy starts
Saves fuel consumption — motor wear
Cuts cost of terminal heating
Prolongs battery life

KIM HOTSTART MFG. CO.
West 917 Broadway, Spokane 11, Wash.
Please send literature, prices, name of local KIM dealer.

Name_____
Company_____
Address_____
City_____ Zone____ State_____

Refrigerator Explosion Hazard

Many laboratories, manufacturers, hospitals, and other users of such hazardous liquors as alcohol, ethyl ether, benzene, and volatile petroleum solvents often refrigerate these fluids in an ordinary household refrigerator which may have a number of electrical components within or contiguous to the storage space. These electrical parts, that is, controller, light switch, lampholders, etc., within the storage compartment are not designed to be safe for use in atmospheres containing explosive vapors, and fluids which may vaporize to form such an atmosphere or mixtures which may release flammable gases or vapors should not be stored in a refrigerator unless it is specifically designed for the purpose.

Likewise, the condensing unit containing a motor, starting relay, etc., may be so located that upon opening the cabinet door the flammable vapors may be ignited from these sources.

Insurance companies, refrigerator manufacturers, and safety authorities have expressed concern over this practice in view of a number of explosions which have already occurred. Mr. Howard H. Fawcett in a letter to "Chemical & Engineering News," dated July 18, 1949, describes four serious explosions resulting from the storage of flammable liquids in ordinary household refrigerators.

A Data Card on this subject, Serial No. UI. 439, issued by Underwriters' Laboratories, Inc., states in part:

"Refrigerating equipment to be safe for such use must be specially designed so as to safeguard all possible sources of ignition inside the refrigerated compartments. Explosion-proof electrical equipment should be employed in connection with all refrigerators in which explosive mixtures may occur. Even if located outside the refrigerated compartment, explosion-proof electrical equipment will be safer as opening the refrigerator containing an explosive mixture may allow some of the mixture to reach electrical sources of ignition. Of course, under the circumstances all other outside sources of ignition such as open gas burners should be eliminated.

"Adequate room ventilation around the refrigerator will also assist in minimizing the explosion hazard."

As yet no refrigerators have been submitted to Underwriters' Laboratories, Inc. for listing for use in explosive atmospheres, although some water coolers are listed for such use.

Pending the development of refrigerators especially designed for this purpose, it would be desirable in the interest of safety where it is necessary to place flammable liquids in refrigerators:

(a) to employ a refrigerator with no electrical components within the cooling compartment, and

(b) to employ a refrigerator the condensing unit of which employs a hermetic or totally enclosed type motor.

Syracuse Broadens Use of Radio

Fire Chief William J. Connelly of the Syracuse, N. Y. Fire Department reports that installation of two-way radio system on the city's fire apparatus has started.

All fire apparatus will be linked in the new radio communications program.

We too are proud of Philadelphia

The city of Philadelphia is proud of her historic past . . . proud of her role in the freedom of this land of ours. Home of the Liberty Bell and famous Independence Hall . . . the seat of the Continental Congress at the time the Declaration of Independence was adopted.

Sure Philadelphia is proud of her past — but she's proud of the present, too! That's why Blackinton Badges were selected for the men in her fire departments.

It will pay you to see what Blackinton has to offer. For the plus value in badges ask your dealer to show you Blackinton Badges.

BLACKINTON

V. H. BLACKINTON & CO., INC., ATTLEBORO FALLS, MASS.

OIL PLANT PROTECTION

WITH FIRE-TESTED AER-O-FOAM

FIRES OUT QUICK ...STAY OUT!

Refineries . . . barrel houses . . . bulk plants—wherever flammable liquids are stored AER-O-FOAM "Fire-Tested" Protection is needed!

National AER-O-FOAM provides quick, effective action that stops fires before they get a "start." AER-O-FOAM forms a thick, tough, long-lasting, airtight blanket of foam that snuffs out flames . . . insulates threatened areas and prevents flashbacks . . . AER-O-FOAM is non-corrosive . . . easily washed away with hose stream.

Complete Protection For Oil Industry

Whether it is a complete foam system for a refinery, a refill can of AER-O-FOAM liquid or a foam charge for a hand extinguisher . . . National can supply your every need.

NATIONAL FOAM SYSTEM

WEST CHESTER, PA.

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

Coals to Newcastle

Fires in fire stations aren't very commonplace, especially in municipal fire departments where there's a man on watch at all hours. All of which makes the episode that befell the Brothers of Ladder 3, Water Tower 2 and the Chief of the 6th Battalion, N.Y.F.D., in their house at 108 E. 13th Street early in the morning of August 31 last, "something for the book."

At 4:26 A.M., an explosion of gasoline fumes in the basement of the firehouse started a fire that gave "all hands" on a full box assignment, plus the specially called Rescue Company and top officials of the department, considerable gruelling work.

Prior to the blast, it is reported the fireman on watch had smelled an odor of gasoline and had examined all apparatus on the floor. Not satisfied, he was en route upstairs to notify the officer when the blast came. The watchman streaked for the house box and pulled it and officers and men hit the floor, to find the fire raging under them.

Providentially, the large door and the windows of the house were open at the time and the men were able to get the aerial ladder, water tower and chief's car out into the street. But none of the units carried sufficient hose to get water on the fire (even if the men could have made the cellar in the heat and smudge). It wasn't until Engines 72 and 5, and the balance of the full alarm assignment under Division Chief Wood pulled in that the fight to extinguish the fire began.

It is reported the first knowledge the Bureau of Fire Alarm (Manhattan) had of the trouble came when telegraph and telephone circuits in the Central Park office showed open on the lines of Ladder 3. Advised of the unusual fire, Chief Peter Loftus and other top officials sped to the scene. Rescue 1 and the Smoke Ejector were called and firemen donned masks to get at the seat of the trouble. A cargo of coal in the basement also contributed to the fire fighters difficulties. Later a tow truck was used to help remove this. A hydrant thawing unit was called to charge the gasoline tank with live steam to lessen the danger of another blast from the high concentration of fumes.

One cause advanced for the bust-up was that an unusually heavy rain of that night had found its way into a defective air vent of the gasoline tank, where the water raised the level of the fuel to the overflow point. Vapors built up in the basement and were ultimately ignited by a small coal-burning hot water stove.

The damage was reported as considerable.

* * *

Did Firemen Get the Bird?

Evidently a feathered arsonist did give the Brothers of Lakefield, Ontario, the "bird," if we're to believe Fire Chief Allen H. Clark of that city. Inasmuch as Brother Clark has served long and honorably as secretary-treasurer of the Dominion Association of Fire Chiefs, we've gotta believe his tale, which goes as follows:

"Yesterday, I received an alarm for a grass fire on the outskirts of the town and of course responded with one company. The fire was covering a large area and could assume dangerous proportions, so we gave it the proper treatment. Then we went hunting for the cause.

"This is an isolated area, with a heavy crop of dried grass and other brush, and a power line runs across the whole field, suspended at one point by a pole on top of a knoll.

"Folks located about 1,000 yards away described what they believed was a ball of fire, which appeared to drop from the pole top to the ground where the brush immediately took fire.

"There were no other persons near the scene at the time and there were no apparent indications of wire or pole line trouble. However, a number of persons attested to the falling bit of fire and resulting ignition of ground cover.

"In investigating further into the cause, we found a dead bird at the foot of the pole, with its feathers burned off. This apparently was the cause of the fire. I have never run into one like this before and have always believed that birds alighting on power wires could not cause a "short." However this is evidently what happened. Mebbe this is one for the "believe it or not" items in the "Watch Desk."

—Thank you CHIEF CLARK

* * *

How to "Milk" a Fire

When fire broke out in the motor of Harry Hesse's milk truck in Bridgeport, Conn., Harry, driver and owner, was fully prepared to fight the flames.

While his helper hustled to turn in an alarm, Hesse grabbed up several cases of bottled milk and went to work to "milk" the fire out of existence. It was a tedious job, uncapping each bottle, but Hesse persisted and managed to at least hold the fire in check until Bridgeport firemen under Assistant Chief Arthur T. Platt arrived and took over. That was just as tuckered-out Hesse had emptied quart No. 51 in the general direction of the fire.

Hesse said he and his helper were making deliveries when they heard an explosion under the hood, and upon invesigtating found the wires ablaze. Chief Pratt allowed as how anti-freeze dripping onto the hot engine block caused the fire. Damage was $50 plus the "milk fire extinguishing agent."—Thanks TOM MAGNER.

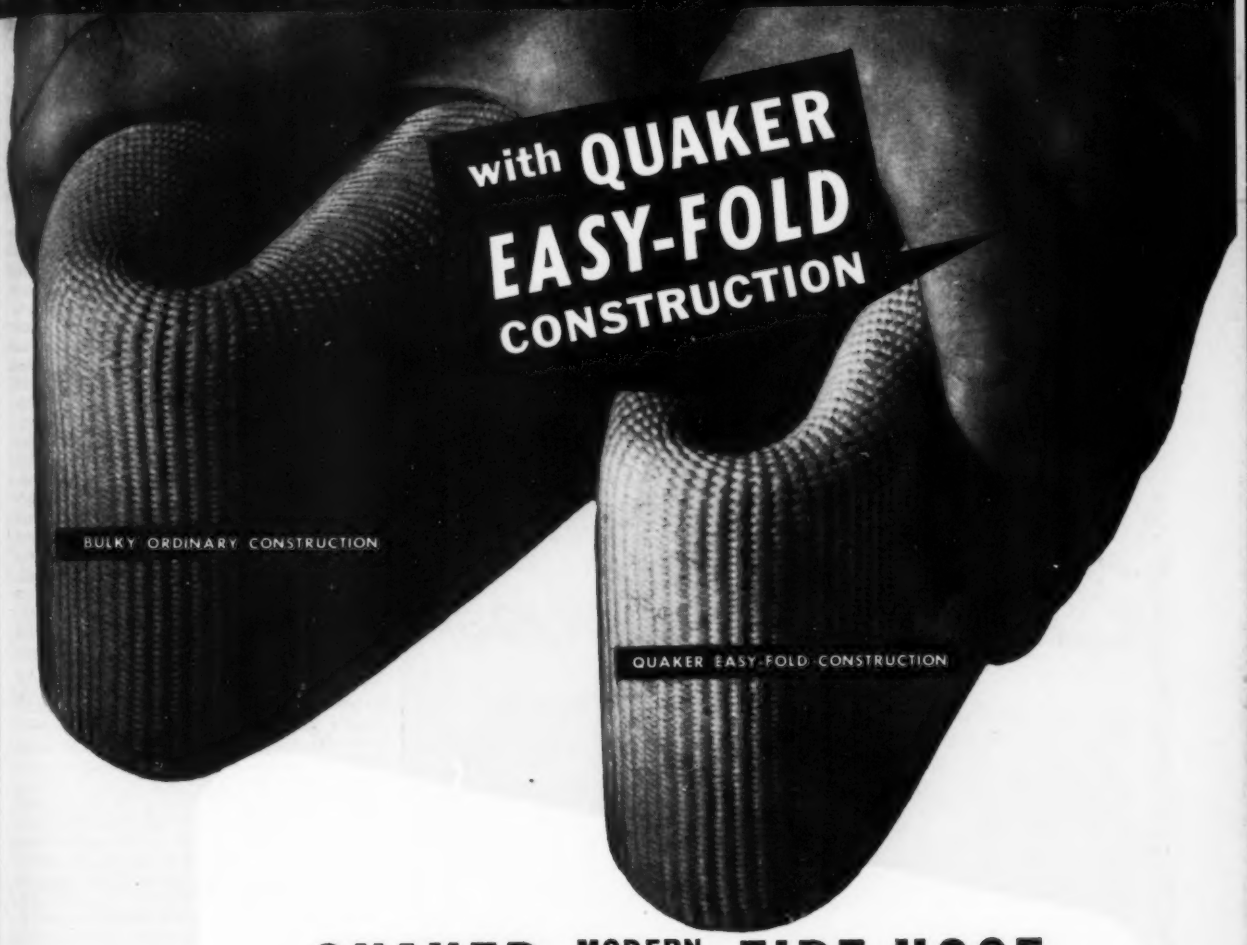
* * *

A Combination of T-errors

Firewater, fire and a bathtub full of gasoline, resulted in a singing, and a berth in the Nashville hoosegow, for an elderly "Nash-villain" one Saturday night.

It all began, said police officers, because of a wet pavement, blinding lights and a minor traffic accident. The culprit, or victim, as you choose, was in his car parked without lights on a boulevard. Along came another car, the driver of which was blinded by lights of still another vehicle, and skidded into the Nash-villain's machine. The latter pulled

OU GET ⅓ MORE PROTECTION



QUAKER MODERN MUNICIPAL FIRE HOSE

folds flatly . . . allows 33% more footage in trucks

Yes — with Quaker easy-fold construction you get greater flexibility, flatter folding, more compact storage without sacrificing ruggedness or long service. That's because it is designed and made by Quaker specialists to fold flatly, easily, quickly.

When minutes mean lives, fire fighters have extra fighting power with 1/3 additional footage to reach the high, out-of-the-way spots. You'll get longer-lasting securiy too, because Quaker Hose is made to resist constant abrasion, high pressure, hard usage.

Cities, communities, industrial plants will find top dependability, greater economy with Quaker Modern Muncipal Fire Hose. Order a supply soon for safety's sake.

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OFFICES AND BRANCHES IN PRINCIPAL CITIES

up anchor and hustled away before officers arrived.

When he arrived at his home he surveyed the damage and found a hole in his gasoline tank caused by the collision. So-o-o-o— not wanting to waste all the precious gasoline (he had just had his tank filled, he told officers) the hero(?) of this story put a tube under the tank to catch the dripping fuel, and then waited until he thought the receptacle was about full.

Unable to check the contents of the tub in the dark, our subject pulled his next boner—he struck a match and held it "about a half a foot, I guess" from the tub.

The result was about what might be expected. Up went the car, along with the precious supply of gasoline—and one set of eyebrows.

Firemen of Engine 13, Nashville Fire Department, whipped out the blaze while the victim, otherwise unhurt, but considerably bewildered and smoke-blackened, stood by.

Arrested on charges of public drunkenness and leaving the scene of an accident, our hero(?) was lodged in the local cooler where officers said he could "cool off" while he pondered the folly of lighting matches near gasoline.—Thanks R. H. DAVIDSON.

* * *

Off the Ticker

Safecrackers who evidently dropped their blowtorches in making a hurried exit from a Trenton, N. J., public utility office brought firemen and police in answer to an alarm. $150 was missing from safe, and heavy fire damage done to the office. . . . In Chicago, Mrs. Ida Martin, 52, filed suit for $100,000 against a funeral director because of alleged failure to protect her husband's body. The suit charged that on the day of his scheduled wake, Jan. 11, a fire in the funeral parlor burned the body beyond recognition. . . . Orchids to Patrolman Carl Schwartz, N.Y.P.D. of Brooklyn, who is credited with saving 50 men, women and children from a burning 4-story dwelling in that borough. After his heroic efforts, he collapsed on the sidewalk from smoke and exhaustion. Firemen fought fire, which spread to other structures, for 45 minutes. . . . In Los Angeles a machinist turned on the gas to end his life. Then he blasted himself to death when he lit a cigarette—to be nonchalant, no doubt. . . . Charged with setting 14 fires in his neighborhood early on a Monday morning, Horace Pedro Galindez, 22, Puerto Rican seaman, was sent to New York's Bellevue Hospital for observation. Luckily, fires caused small damage. . . . About 725 pupils marched safely from the Baldwinsville Academy and Central School, Baldwinsville, N. Y., when a fire broke out in a stairwell. . . . A tank-truck driver pulled up beside the gas station, in Teaneck, N. J., recently, fixed his hose to the opening in the ground and pumped away. Six hundred gallons later he put the hose back on the truck, left a bill for $122 and drove off. Next day people complained of a distinct aroma of gasoline throughout Teaneck. Police sniffed and found the driver had pumped load down the wrong opening—it connected with a sewer system. . . . In Newark, N. J., George Walsh, 4, hopped out of bed, put on the new fireman's helmet his mother had bought him the night before a circus and went hunting for fires. The one he promptly found was on the roof of his home. Georgie hollered "Fire!"; his Pa turned in an alarm. The Brothers did the rest. . . . A Laconia, N. H., call-fireman narrowly escaped serious injury while doing traffic duty while a piece of fire apparatus was undergoing a test. He was hit by a car, the driver of which mistook him for a pedestrian, so it says in the book. The fireman was hospitalized with bruises—police got the car driver. . . . A lot of guys would like to get their hands on Richard Bidwell, 18, of Royal Oak, Mich., who was sentenced to jail for 10 days for pouring turpentine on a puppy and setting the helpless animal on fire. . . . Down in Mexico, Mo., firemen, responding to an alarm near a sewer construction project, found a truck trailer with its tires ablaze from a street fire. After the fire was knocked out, Fireman Bill Rawlins remarked: "Didn't use much hose on that one." "No, but I'll bet you didn't know what I know," replied a construction worker, "that trailer is loaded with dynamite!" (Thanks, Irving Johnson). . . . The West Chester, Pa., Fire Department will be glad to take any old brooms. Fire Chief Winfield Slaughter said his men use the brooms in fighting brush and grass fires. Added the local wag, "they wear out quickly!" S'matter—having budget trouble, Chief? . . . . In Williamstown, Mass., the firemen's annual ball broke up for lack of partners when the male dancers were called from the floor five times in less than two hours by false alarms. Some cuss musta failed to have gotten an invitation! . . . . This from Jamestown, N. Y.: Fireman Charles Harrison dispatched a company to an automobile reportedly on fire.

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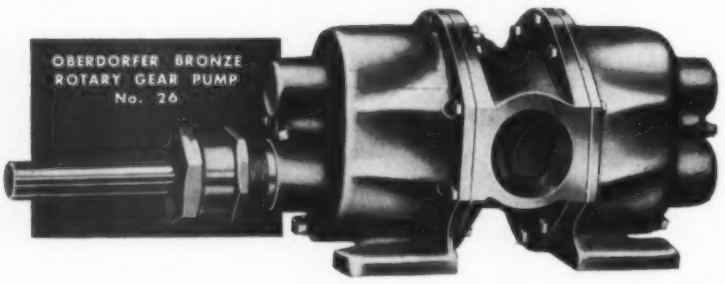
Booster Pumps



The records of many departments show over half of all calls satisfactorily terminated by Oberdorfer Bronze Rotary Gear Booster Pumps alone, with little or no fire or water loss. These pumps held many more of those calls in control the few minutes until heavy pumpers went into action. They provide water and pressure just as fast as a fireman can get to a fire.

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Prices subject to change without notice.

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Pump Shaft RPM	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
1600	120	500'-1½"	15'	150

For complete specifications of this and other Oberdorfer Booster Pumps, and name of your distributor, write:

FIRE PUMP DIV., OBERDORFER FOUNDRIES, INC., Syracuse, N. Y.

A few minutes later Brother Harrison received a report. An overheated brake had caused a minor blaze in his own car. . . . While firemen of East Orange were fighting a fire in an airshaft of the East Orange General Hospital recently, the smoke and excitement didn't interfere with the job of bringing a 6-lb. 7-oz. baby into the world. The fire was out in 10 minutes, and none of the 104 patients and 14 newly born babies had to be moved. . . . Twenty minutes aftr the Brooklyn-Battery Tunnel carried its first paying vehicle, the Triborough Bridge Authority's bright red emergency truck had its first call—motor of a passenger car failed and snarled traffic. No fire. . . . In Bethany, Mo., Paul Fogarty, a truck driver, was rescued from his overturned and burning truck one night while the flames were extinguished by his cargo—beer! . . . . Because firemen in a Chicago firehouse across an alley from the Strand Hotel saw a bell boy throw a burning mattress off a fire escape, the hotel got a plaster of $100 slapped on it for "not reporting a fire to the fire department." Lieut George A. Barlow, Engine 63, was a convincing witness.

Questions and Answers

Filling a Water Tank, Etc.

To the Editor:

1. I want to fill a water tank. The tank is 30,000 gallons capacity and from the ground to its top is 120 feet. (Tower is 100 feet, tank 20 feet.) Two hundred fifty feet of 2½-inch hose is necessary from hydrant to tower and pressure at hydrant is 80 pounds static. What will be the friction loss in hose and how much pressure will be going into the tank?

2. A 200-foot line of 2½-inch hose is branched into two 200-foot lines of 2½-inch hose equipped with a ¾-inch and a 1-inch nozzle. Pump pressure is 80 pounds. What is the nozzle pressure on each line?

W. C. M.

Answer: Answering Question No. 1, back pressure in the riser leading to the tank at the start of fill of the tank will be 100 x .434, or 43.4 pounds.

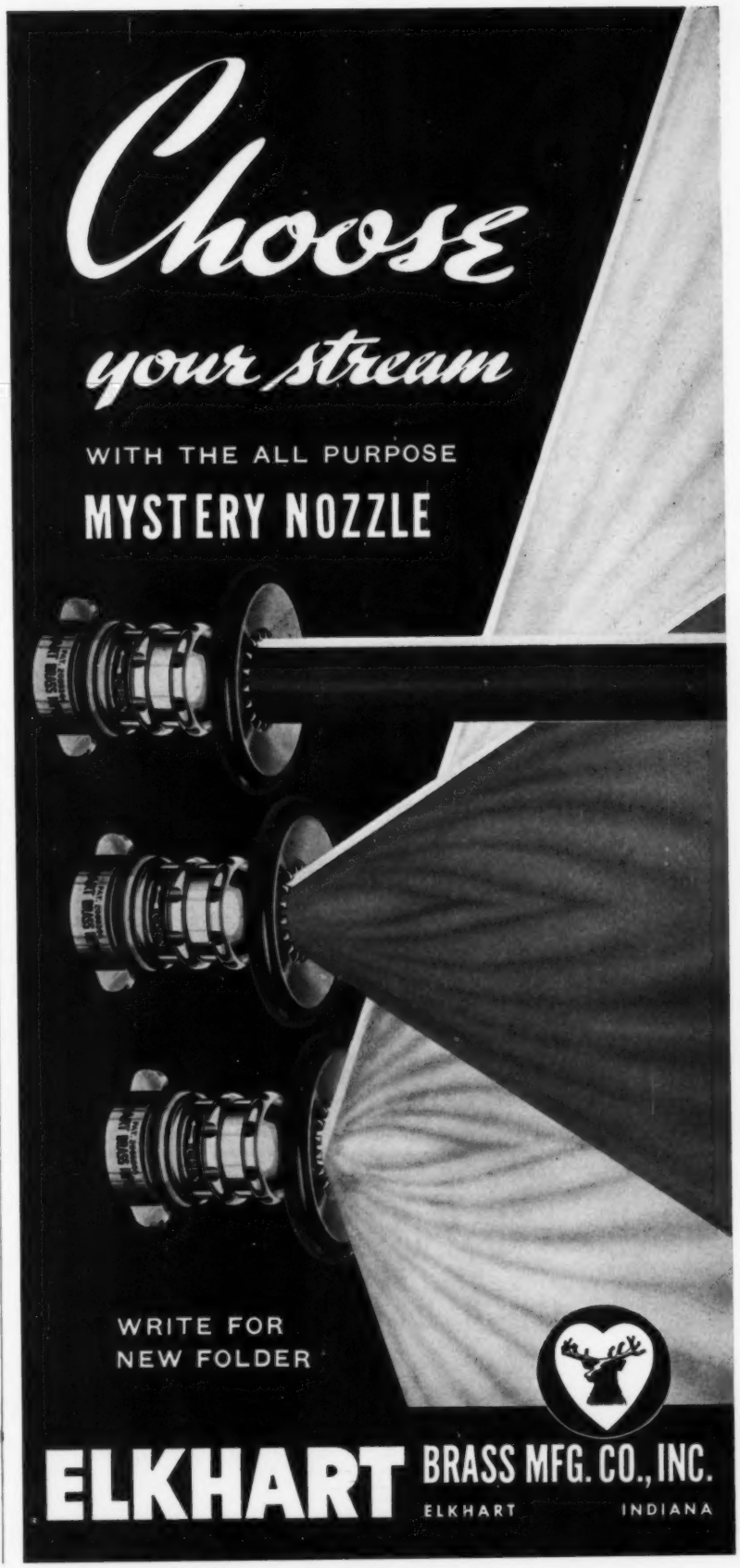
As we reach the end of the fill, the back pressure will be 120 x .434, or 52.08 pounds.

We must assume that the 80 pounds is maintained at the hydrant during the process of filling.

The hydrant pressure will have to overcome friction loss in the hose and the back pressure in the standpipe. In addition, it will be required to overcome the friction loss in the riser or standpipe. However, no diameter of riser is given, and as the friction in the riser will be comparatively small, this factor will be omitted from consideration in the solution.

Then the effective engine pressure for overcoming friction loss in the hose line and for overcoming the back pressure in the riser will be 80—43.4, or 36.6 pounds at the start of fill of the tank.

In solving for the flow, we use the formula for hose line with open butt.



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THE STANDARD
(2 ton Chassis, 158" Wheel base)

THE NEW X-L ECONOMY UNIT
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INTERNAL EXPANSION — no shrinkage of hose at coupling

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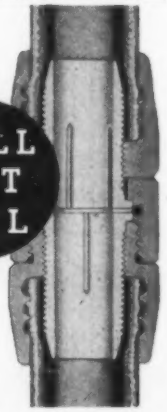

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K for 2½-inch open butt on a 2½-inch line is 3.35.

Nozzle Pressure (butt pressure)
$= \text{E. P.} \div (1.1 + KL)$
$= 36.6 \div (1.1 + 3.35 \times 5)$
$= 36.6 \div 17.85$
$= 2.05$ pounds.

This pressure is the pressure required at the outlet of the open butt to enable the hydrant to overcome friction loss in hose line and back pressure in riser. This figure 2.05 pounds may be considered as nozzle pressure.

The friction loss in the hose line will then be 36.6-2.05, or 34.55, or 34½ pounds approximately.

At the end of the fill, the friction will be less as the hydrant will be able to discharge less water through the riser into the tank.

In this case, the back pressure will be 52.08 pounds, or 52 pounds approximately.

The corrected engine pressure will be 80 — 52, or 28 pounds.

Nozzle Pressure $= 28 \div 17.85 = 1.57$ pounds.

Friction loss in the line of hose will be 28 — 1.57, or 26.43 pounds.

Now, should air vents in tank then be closed so that the pressure in the tank will be built up without any flow of water, the pressure in the tank, at its top, would be 28 pounds. This is equal to the hydrant pressure minus the back pressure, or 80 pounds minus 52 pounds.

Answer 2. The first step in solving this problem is to combine the two parallel 200-foot lines of 2½-inch hose into a single line. This is done by dividing 200 by the factor 3.6, giving us an equivalent length of 55.56 feet of 2½-inch hose, single line.

Then add this to the 200-foot supply line and we have 200 + 55.56, or 255.56 feet of hose, single line, which is the equivalent of the layout as given.

Next combine the nozzle areas
$¾ \times ¾ = .5625$
$1 \times 1 = 1$
$.5625 + 1 = 1.5625$
$\sqrt{1.5625} = 1.25$, which is the nozzle diameter equivalent to the sum of the two nozzles given.

Then the revised layout is equal to a single line of 2½-inch hose 255.56 feet in length, fitted with 1¼-inch nozzle, and supplied by an engine at 80 pounds nozzle pressure.

Nozzle Pressure
$= \text{Engine Pressure} \div (1.1 + KL)$
$= 80 \div (1.1 + .248 \times 5.111)$
$= 80 \div 2.367$
$= 33.8$ pounds

The discharge from a 1¼-inch nozzle at 33.8 pounds is equal to $29.7 \times 1¼ \times 1¼ \times \sqrt{33.8}$, or 269 gallons per minute approximately.

The friction loss in 200 feet of 2½-inch hose at a 269 gallons per minute flow will be $2 \times (2 \times 2.69 \times 2.69 + 2.69)$, or 34.32 pounds approximately.

It is necessary to get the flow and the friction through the supply line as we must determine what the pressure at the wye will be so that we can solve each of the two lines separately to find the pressures at the ¾ and the 1-inch nozzles. The pressure at the combined nozzle is not the pressure at each of these nozzles, as subsequent calculations will show.

The pressure at the wye will be equal to the engine pressure minus the friction loss in the 200 feet of 2½-inch hose, or 80 — 34.32, or 45.68 pounds.

Using this 45.68 pounds as engine pressure, we solve for the pressure at each nozzle.

Solving for ¾-inch tip pressure:

N.P. = E. P. ÷ (1 + KL)

This formula is for small nozzles, under 1-inch diameter. It will be noted that it differs from the standard formula for nozzle pressure in that the figure 1 is used instead of 1.1.

K for ¾ inch nozzle on 2½-inch hose is .042.

L = 200 ÷ 50 = 4

N. P. = 45.68 ÷ (1 + .042 × 4)
= 45.68 ÷ 1.168
= 39 pounds approximately.

Solving for 1-inch tip pressure:

N. P. = 45.68 ÷ (1.1 + .105× 4)
= 45.68 ÷ 1.52
= 30 pounds approximately.

Note that these individual pressures on the ¾ and 1-inch tips vary considerably from the pressure on the combined nozzle, which was 33.8 pounds per square inch.

Factors for Fog Nozzles

To the Editor:

In figuring problems in hydraulics, regarding nozzle pressure, what size nozzle tip would a Rockwood or regulating fog nozzle in the 1½-inch or 2½-inch size be equal to?

W. B.

Answer: A 1½-inch fog nozzle is considered the eqivalent of a plain nozzle of .475 inches diameter.

A 2½-inch fog nozzle is considered the equivalent of a plain nozzle of .75 inches diameter.

The value of "K" for 1½-inch fog nozzle on 1½-inch hose is .069.

The value of "K" for 2½-inch fog nozzle on 2½-inch hose is .0316.

"The Show Must Go On"

As they say in the world of entertainment, "the show must go on."

In the little town of Simsbury, Conn., its population is only 5,000—the local light Opera Company was going through dress rehearsal in Eno Hall, the town auditorium, for Gilbert and Sullivan's "The Mikado." In the play appeared several "gentlemen of Japan," which actually comprised a group of Simsbury's storekeepers, farmers and, even a forester. The group was lustily bellowing the chorus when—

The fire siren wailed far above the music. On stage there was a commotion and a gap appeared in the chorus line. One of the "gentlemen," pigtail, robe and all dashed from the footlights.

Out in the street the usually quiet Simsbury townfolk were astonished a few moments later to see a robed and pigtailed volunteer fireman clinging to the red fire truck as it roared down Main Street.

In Simsbury, as in other small U. S. towns this summer, such incidents rarely disturb the dramatic efforts of amateur dramatic clubs. At Simsbury the singing went on, the fire, which later was found to be a barn, was extinguished, and the fireman-tenor, now in his red helmet turnout coat and boots instead of a pigtail, returned to finish the rehearsal.

Tom Magner

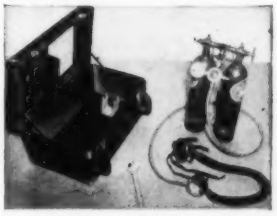
Protect Your Citizens with Better-Equipped Rescue Squads

Scott Demand Inhalator

THE new Scott *Demand* Inhalator provides efficient portable oxygen equipment for emergency use, *at low cost.* Offering "demand" flow of oxygen, plus constant flow if needed, the Scott *Demand* Inhalator can be used independently or as supplemental equipment in resuscitation, freeing resuscitators for use elsewhere.

The Scott *Demand* Inhalator is simply designed, easy to use. No adjustments of any kind are needed; department personnel does not require special training to use this new Scott product.

TYPE "A" Scott Demand Inhalator — portable, or for fixed installation in truck or ambulance (without cylinder) $88.50



TYPE "B" Scott Demand Inhalator including carrying case (without cylinder) $147.50

Here are the Outstanding Features of the New Scott DEMAND Inhalator.

SIMPLE. The Scott *Demand* Inhalator is easy to use — requires no special training. No adjustments are necessary — just a quarter turn of the cylinder valve and the Inhalator is ready to restore shock, immersion and heart-ailment victims.

EFFICIENT. With the Scott Inhalator oxygen is provided in ample quantity as "demanded" by the victim, conserving precious oxygen supplies. Constant flow also available when needed, "at the touch of a button."

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For Practical Discussion of Current Fire Department and Fire Management Problems

FIRE PROTECTION OF AIRPORTS

THE discussion in this Round Table is a continuation of that which appeared in the August and September issues of FIRE ENGINEERING on fire protection of airports.

The generous response from our readers makes it necessary to carry the discussion over to this issue.

Readers are invited to send in their comments on this subject or on next month's subject which is described in a box on a subsequent page, to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Question

Frank S. Sandeman, Chief, Long Beach, Cal.: We have an Army type 125 crash rig stationed at the field. Because they also use the field, the Army and the Douglas Aircraft Co. have crash rigs manned by them.

All new construction over space limits is sprinklered, old construction not. Any new construction requires sprinklers under building code if over the area permitted.

Thomas H. Cotter, Chief, Providence, R. I.: There are no airports within the City of Providence. The nearest and largest airport is the Theodore Francis Greene Airport, located in Warwick, R. I. If called upon by the City of Warwick, our Department would send assistance, but we have no special equipment.

Donald S. Charles, Chief, Charlotte, N. C.: We have two pumping engines manned by city firemen at the local airport. In the event of an emergency, fire fighters are assisted by National Guard emergency crews. Hangars and other buildings are not sprinklered.

Barney J. Houston, Chief, Cincinnati, Ohio: We do provide fire protection for the airport. Equipment consists of foam nozzles. Apparatus is provided by both the airport and the fire department and is at the airport. Fire fightters are trained men of our department.

Buildings and hangars are not sprinklered.

Walter G. Strickfaden, Chief, Columbus, Ohio: We provide a regular assignment of apparatus—fog nozzles, foam and dioxide units.

The Navy maintains complete fire equipment at the municipal airport, none at private fields. Their apparatus is manned with Navy personnel. The city pays the salaries of municipal fire fighters.

Buildings and hangars are not sprinklered.

Martin J. Hayden, Chief, Bridgeport, Conn.: There is a direct wire from the control tower at the airport to the fire department control room to avoid mistaken fire at night.

In the event of fire, the Bridgeport Fire Department responds with a 750-gallon pumper, a 75-foot ladder truck, a squad car, the Chief and Assistant Chief. A 500-gallon crash car is stationed at the airport and manned by airport personnel.

The city pays for city apparatus and firemen responding.

Hangars are sprinklered.

G. E. Hare, Chief Jacksonville, Fla.: We provide a 750-gallon pumper for protecting the airport. A chemical wagon and a fog wagon are provided by the field. This apparatus is stationed permanently at the field, and manned by city firemen. The city pays the salaries of these firemen.

Only one large building is sprinklered. Hangars are equipped with stand-pipes.

In case of fire at the airport a full

HERE IS THE TOPIC

1. **Does your fire department provide fire protection for the airport, or airports, within or near your city?**
2. **What type of apparatus and equipment is utilized?**
3. **Is the apparatus provided by the airport or your department?**
4. **Is apparatus stationed permanently at the field?**
5. **Are the fire fighters trained firemen of your department? If not, are they recruited from the ranks of civilians?**
6. **Do airport personnel assist the fire fighters in emergencies?**
7. **Who pays for apparatus and equipment? Who pays the salaries of the fire fighters if they are stationed at the airport?**
8. **Do the commercial airlines or any other agencies using the airport steadily or with regularity pay any part of the cost of fire protection?**
9. **Does any other municipal department, or commission share in the cost of fire protection?**
10. **Are hangars and other buildings sprinklered?**

assignment from the city answers the alarm. This consists of two engine companies, one hook and ladder company and an assistant chief.

R. L. Woolard, Chief, Norfolk, Va.: We do not provide fire protection for the airport. A crash truck utilizing carbon dioxide, liquid foam and water is provided by the airport and staffed with fire fighters recruited from ranks of civilians.

Buildings are not sprinklered.

Walter H. Kammann, Chief, St. Louis, Mo.: We do provide fire protection for St. Louis Airport. Our closest company is five miles distant.

Apparatus is a 750-gallon pumper with fog equipment.

The Naval Reserve unit has barracks and equipment at the edge of the field and would be the first in action.

We are making an effort to have hangars sprinklered and larger water mains installed.

Clyde Dunn, Chief, Omaha, Neb.: We have an American-LaFrance Combination pumper, a 200-gallon booster, a Du-Gas truck and a hose wagon manned by firemen and stationed permanently at the field. The city pays the cost of salaries and equipment.

Airport personnel assist the fire department in the event of an emergency.

Buildings and hangars are not sprinklered.

Alex M. Andrzejewski, Chief, South Bend, Ind.: We provide fire protection for the municipal airport but not for private airports. The assignment consists of two engine companies, one three-stage high pressure truck, one service truck and the assistant chief. A high pressure and a dry powder jeep is stationed permanently at the field.

Fire fighters consist of trained men from our department and airport personnel who have been trained for this purpose.

The City of South Bend and St. Joseph County pay the costs of fire protection.

Some hangars and buildings are sprinklered, others are not. Fire station and garage are of fire resistant construction.

John F. Collins, Chief, Cambridge, Mass.: Cambridge has no airport. We have five pieces of equipment that have high pressure fog units. One high pressure unit has a Bean pump and carries 450 gallons of water. The other four are combination hose wagons carrying 350 gallons of water each.

We have mechanical foam on all trucks and every piece of apparatus carries pick-up nozzles.

Each engine company is equipped with Elkhart spray nozzles to attach to a 2½-inch line and Rockwood applicators.

C. C. Styron, Chief, Atlanta, Ga.: We provide fire protection for the airport.

Apparatus consists of two crash trucks and a 500-gallon pumper. This was formerly Government equipment and was turned over to the airport. It is stationed permanently at the field and manned by five regular firemen assigned to airport station.

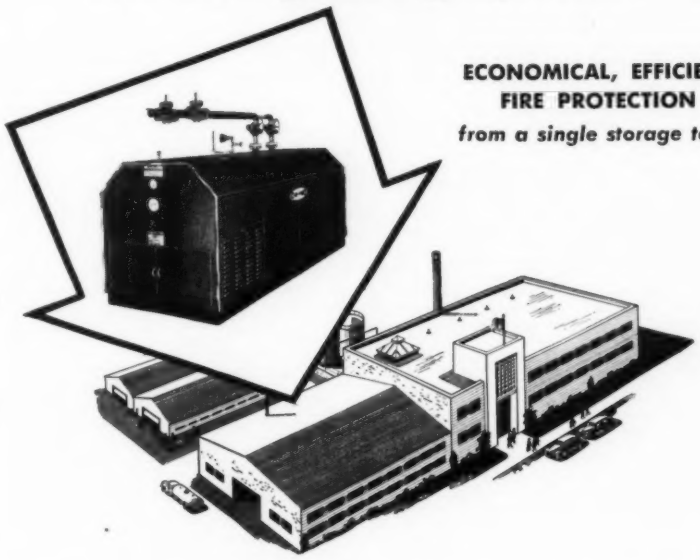
Some of the buildings are sprinklered.

Leo R. Barry, Chief, Utica, N. Y.: We provide a regular assignment for fires at the local airport.

C-O-TWO ANNOUNCES

Underwriters' Laboratories, Inc. Listed

Low Pressure Carbon Dioxide Type Fire Extinguishing Systems



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CIRCUL-AIR is the patented, electrically operated HOSE DRYER which circulates pre-warmed fresh air through coiled wet hose at the rate of 5 to 6 air changes per minute. It was designed to lengthen hose life; improve the appearance and functional design of new fire houses; and to save floor space and hard work. **NO OTHER METHOD is so fast—so easy to use—so economical. Dries Hose in a Few Hours. *No* Radiant Heat—Can't Injure Hose. Dries Fire Clothing, too. Is Ideal for Hose Storage. Keeps *All* Hose Ready for Service.**

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Centrifugal, Rotary and Piston Pumps Supplied
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HERE IS THE TOPIC FOR THE NEXT ISSUE

1. **In what ways do you cooperate with large industries in your city to provide better fire protection?**
2. **Does your fire department partake in fire prevention activities with large industries?**
3. **Are you called upon by these industries for professional advice, such as recommending the proper type of fire fighting equipment to protect special hazards, recommending fire prevention measures, etc.?**
4. **In what other ways do you believe such cooperation can be extended beneficially?**

Airport personnel assists the fire department in the event of an emergency.

Buildings and hangars are not sprinklered.

L. D. Blanton, Chief, Tampa, Fla.: A 750-gallon pumper and a combination foam and fog truck answer first alarms in part of airport operated by the Airport Authority. Both the city and the Airport Authority (Hillsborough County) share in the costs of fire protection.

A high pressure fog truck and foam equipment is stationed permanently at the field

Fire fighting personnel consists of city fire fighters and civilians who are specially trained.

Hangars are sprinklered.

Edward L. Uebelhoer, Chief, Fort Wayne, Ind.: We furnish a pumper and rescue units in the event of fire. Two units are stationed at the field. The City Airport Commission pays the entire cost of fire protection.

Buildings are not sprinklered.

Wililam R. Ferrie, Chief, Fire Prevention Bureau, Cleveland, Ohio: We provide fire protection to the Cleveland Airport. Two crash trucks and two Cardox trucks provided by the airport and the National Advisory Commission of Aeronautics are stationed at the field. This apparatus is manned by airport personnel.

Hangars and other buildings are sprinklered.

C. G. Burnett, Chief, Ottawa, Ont.: We provide fire protection for all buildings only at the airports. Apparatus consists of pumpers and ladder trucks.

Apparatus is provided by the city fire department and the airport, as one of the airports is an R. C. A. F. station and maintains some equipment. The other station has no equipment except hand extinguishers.

Fire fighters at one station are R. C. A. F. firemen. We respond if required.

Buildings are not sprinklered.

Hedley J. Coates, Chief, Windsor, Ont.: We provide fire protection for the airport as it is located in the township and we provide fire protection for the township. Apparatus consists of

one pumper, one foam wagon and one salvage truck. Apparatus is not stationed on the field.

Hangars and buildings are not sprinklered.

Michael H. Lotz, Chief Engineer, Baltimore, Md.: We provide fire protection to the airport. Apparatus includes pumping engines and ladder service, including foam facilities, and is provided by both the fire department and the airport. It is stationed at the field and manned by civilians. All the costs are paid by the municipipality.

Some of the hangars are sprinklered, but not all.

George E. Courser, Chief, San Diego, Cal.: We provide regular city apparatus in the event of a fire at the airport. It is not stationed on the field.

Some of the buildings and hangars are sprinklered.

Raul Gandara, Chief, Insular Fire Services, Santurce, Puerto Rico: We have a White carbon dioxide crash truck, a General Motors crash truck and a trailer with ten 100-pound carbon dioxide extinguishers. This apparatus is stationed permanently at the field and manned by regular firemen. Salaries and maintenance of apparatus are paid by the fire department.

Hangars and buildings are sprinklered.

M. L. Butler, Chief, San Antonio, Tex.: The San Antonio Fire Department provides high pressure crash trucks and a pumper in the event of fire at the airport. These units are manned by firemen and stationed permanently on the field. Airport personnel aid in the event of an emergency.

Buildings are not sprinklered.

Elgin Wood, Chief, Wichita, Kans.: Two 750 GPM pumpers and a ladder truck respond on the first alarm to fires at the airport. This apparatus is not stationed at the field. The city pays all costs of fire protection.

Airport personnel assist the fire fighters in the event their help is needed.

Buildings on the field are not sprinklered.

Harold R. Becker, Commissioner of Fire, Buffalo, N. Y.: We provide foam, water fog and dry powder equipment in the event of a fire at the airport. These units are stationed permanently at the field and manned by Buffalo firemen. The city pays the entire cost of fire protection.

Buildings are partially sprinklered.

William H. Mattocks, Chief, St. Paul, Minn.: We provide our regular equipment in the event of a fire at the airport. Two 600-gallon foam trucks are permanently in service at the airport and maintained by them. The city pays the entire cost of fire protection. Fire fighters are trained firemen of the St. Paul Fire Department.

Buildings and hangars are sprinklered.

Norman R. Wypruk, D.O.T.F.D., Montreal Airport, Canada: The Montreal Fire Department does not provide protection for any of the airports near the city because these are under control of the Federal Government and located a great distance from the city limits. Fire protection facilities at these airports are described briefly below:

MONTREAL AIRPORT—used by commercial airlines. Fire apparatus is maintained permanently at this field and

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HART SHUT-OFF NOZZLE THREADED TO SUIT

A leader in more ways than one. It has a long and time-honored reputation for long, dependable, rugged service.

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This dependable Shut-Off Leader comes in the 2½" size. It is built to stand up and function perfectly under the most rugged treatment. The Fire Service has learned to depend on this nozzle for more than 50 years.

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Comes in 1½" size for hose connections. Tip end chemical thread. The Sachem Leader line shut-off nozzle has earned an enviable record. It is truly a leader. It is one shut-off nozzle you can order and be assured you are getting your money's worth.

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SAN JOSE 10 Since 1920 CALIFORNIA

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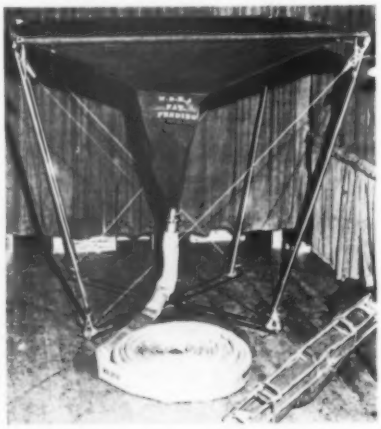
DON'T LET WATER RUN WILD — TRAP IT!



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- Keep the Inside Dry

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for the best fire ladders

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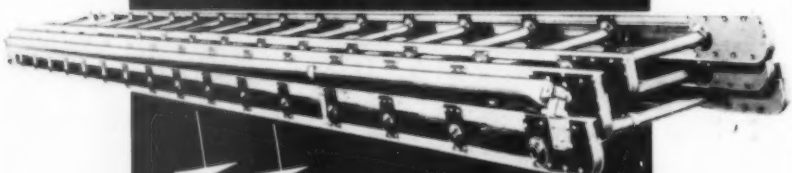

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The ideal ladder for fighting fires is one that is lightweight, strong, durable, fireproof, rust-proof, and warp-proof. Aluminum fire ladders have won wide acceptance because they fulfill these requirements.

But not all aluminum ladders are the same. ALCO-LITE Aluminum Ladders incorporate patented features of construction that have never been equalled. That is why we say: for the best fire ladders, buy aluminum ladders—for the best aluminum ladders, buy ALCO-LITE.

Write for folder containing complete information on our line of Light and Heavy Duty Fire Ladders.

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nineteen fire fighters and one chief comprise the fire fighting force. An average of seven men are on duty twenty-four hours a day, and they maintain and operate the following equipment: A 1000 GPM Walter crash truck with 550 gallons of water and 50 gallons of foam for use through a Rockwood turret nozzle. This truck has 500 feet of 2½-inch hose and rescue tools. A 1200-gallon water tank with a 500 GPM OCD pump and 20 gallons of foam and miscellaneous equipment. A rescue truck with 630 pounds of carbon dioxide. A 500 GPM triple combination pumper with 1000 feet of hose. An ambulance capable of transporting five patients.

The commercial airlines and other agencies using this airport do not pay any part of the cost of fire protection. The Canadian Government maintains the cost of operating the fire department. The freight shed is the only sprinklered building on the field. All others have first aid fire equipment and are patrolled by constables.

CARTIERVILLE AIRPORT—used by flying clubs and aircraft construction firms. Three separate fire departments protect this field, using three crash tenders (each having 300 gallons of water, a 100 GPM pump, 25 gallons of foam and 230 pounds of carbon dioxide); one hose wagon with 1500 feet of hose and a utility truck equipped with dry chemical, hose, etc.

The Canadian Car & Foundry Co. have two firemen operating crash truck during the day. Maintenance employees operate this truck at night.

Airport employees (Federal Government) operate one crash truck.

Canadair Co. operate one crash truck, hose wagon and utility truck. They have five firefighters on duty who also perform inspections and standby work during hazardous operations in their buildings.

All buildings on this airport are sprinklered and are patrolled by constables. Firefighters and equipment are permanently stationed at this field.

Flying clubs based at this field do not pay any part of the cost of fire protection, but they must supply first aid fire equipment for their own use.

ST. HUBERT AIRPORT—This is a Royal Canadian Air Force airfield and complete fire protection facilities are provided by their permanently stationed fire department.

World Wide Fire News

By Roi B. Woolley

Dynamite Blast Wrecks Mix House, Eight Dead

A dynamite explosion at the National Powder Company, Eldred, Pa., on September 12 wrecked a steel and frame house where dynamite and nitroglycerine were mixed, killed eight men, and rocked houses for miles around. Several other employes suffered injuries.

Although armed guards closed the plant to reporters and photographers, everyone in the neighborhood of the little community near the New York border in northwestern Pennsylvania was conscious of what had happened. National Powder is the town's biggest industry, employing 65 of the 2,000 in-

habitants. Blasts there in 1939 and 1944 killed several workers.

Company officials "had no idea" what caused the explosion. Fortunately no fire followed the blast.

* * *

Hull Firemen Want Purge of Reds

Firemen of Hull, one of Britain's largest provincial cities, in September refused to pay union dues until the union had purged itself of Communists.

By the decision the firemen ceased to pay 15 cents a week to the national 18,000 strong union. The men insisted that the matter be brought before a district branch meeting of the union at Leeds on September 21.

According to Fireman H. Webb, Hull Branch secretary, there had been "planned infiltration of Communists into our union," and the union members wanted all Reds out of official positions. Webb also alleged that the union's official journal, Fire Fighter, was being used for Communist propaganda.

* * *

Paper Claims Arson in Canadian Ship Fires

The Toronto "Star" in September published a dispatch from Quebec that evidence has been uncovered that the fires which burned the liner Noronic in Toronto last year and the cruise ship Quebec at Tadoussac, Que., this summer, were caused by sabotage.

The evidence, the story said, was uncovered by investigators of the federal transport department. The Star dispatch, quoting a "high official" in Quebec as its source, said the evidence now is in the hands of the R.C.M.P. (Royal Canadian Mounted Police). The official is reported to have said there is definite evidence of sabotage by the same two persons in the fires.

The Noronic fire took 119 lives; the fire aboard the Quebec claimed seven lives. Actual causes of both fires were never determined, although official investigation into the fires, it is reported, failed to disclose any evidences of sabotage.

* * *

French Forest Fire Touches Off Arms Dump

When a forest fire near LaRochelle, France, swept through pine woods late last summer, 12,000 aircraft bombs dispersed around Bedenacbussac airfield exploded one by one requiring evacuation of women and children from a radius of six miles.

The fire started when a box of explosives in the munitions dump attached to the airfield blew up in the heat. Traffic was stopped on all roads in the area, electric current was cut off, and rail traffic between Bordeaux and La Rochelle was stopped outside the danger zone.

Great columns of smoke rose as 450-pound bombs exploded. The blasts could be heard 30 miles away. All available troops and forest fire fighters in the region were rushed to the scene and fire departments in Bordeau, La Rochelle and Rochefort and Antes were alerted. A plane was used to direct fire control operations from the air.

There were between 7,000 and 8,000 tons of explosives reported in the dump.

* * *

Off the News Ticker

Fire of undetermined origin caused estimated damage of $500,000 to the Government-owned pulp and paper mill in Mandaluyong, 20 miles south of Manila. . . . A waterfront fire, fanned by high winds, threatened to destroy the

Give Fires the Gate - single and double!

No. 924
Hydrant Gate Valve

No. 925
Siamese with Gates

No. 924 has all brass construction. The single wedge disc resists the strain of quick opening and closing. Packing area is unusually large.

No. 925 is a sturdy piece of equipment, practical for every department. The Siamese section is made of brass and especially strong to carry the two Single Hydrant Gates.

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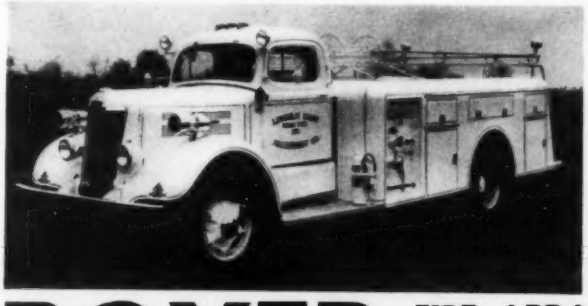

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CUSTOM BUILT apparatus recently delivered to Lincoln Park, Pa.

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"NEW YORKER"
(Leather)

No other helmet made has ever shown the rugged stand-up-ability of this "pioneer" of all "regulation" helmets — which explains why it is first choice in the largest departments, where the duty is hardest.

"SENATOR"
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Where the preference is for aluminum, here is a rugged one-piece "regulation" helmet that is light, durable, safe and comfortable — and largely used by both regulars and volunteers, the country over.

"CLIFTON"
(Plastic)

"Regulation" in every line, this latest Cairns Helmet is made of "Flintflex" — a light, tough, flexible material that gives complete protection against impact, heat, electric current and chemicals.

Write for Catalog 331

CAIRNS & BROTHER
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Outfitters to Firemen Since 1836

city of Argostoli, principal port and capital of the island of Cephalonia off the coast of Greece on September 9. Three Navy ships arrived at the port to help fight the fire, which started in gasoline tanks in the dock area. . . . The official Chinese Central News agency reported that the toll in an ammunition ship explosion at the Formosan port of Takae was eight dead, ten critically injured and 189 slightly hurt. . . . The second fireworks factory blew up on the Island of Malta, last summer where a similar explosion killed four persons the day before. The island's fireworks factories were working at top speed preparing for local religious celebrations. No details or the casualties of the second blast were learned. . . . Fire swept a Matamoros, Mexico, cotton gin and four warehouses, with property loss amounting to $3 million. . . . In Corner Brook, Nfd., volunteer crews and regular firemen brought under control a fire which earlier destroyed a department store in the west coast mill town. Loss was set at $250,000. The blaze, which threatened the courthouse and a church, resulted in liberating of prisoners from the courthouse jail, as the fire crept close. . . . A September 4 fire, started by an exploding stove, burned out two downtown blocks of the oil well and refinery center of Poza Rica, Mexico, with damage estimated at $520,000. . . . As thousands of holiday-makers watched, an American Thunderjet fighter plane blew up over the English Channel, killing the pilot. . . . Fire blamed on Communists, swept a Singapore rubber plantation in July killing one woman employe and causing estimated damage of $4 million. Police said Communists set fire to the Aik Hoe Rubber Co. plantation, largest in the Singapore area, after two previous unsuccessful attempts. . . . at Jeddah, Saudi Arabia, an Arab watchman sat down to brew a pot of tea at a big fuel storage dump. He lit his little fire and 50,000 drums of aviation gasoline, kerosene, benzine and motor fuel went up. Report of fire said "watchman was careless." . . . Air raid sirens sounded in the British channel port of Eastbourne on August 14 for the first time since Germany surrendered in 1945. Local civilian defense officials said it was the start of periodic tests to make sure the sirens worked properly. . . . In Philadelphia, Pa., a practice bomb, which accidentally fell from a Navy plane, landed and exploded on the lawn of a Cheltenham Township home endangering a woman and her 4-year-old son. . . . At least 16 persons were killed when fire destroyed a factory in the Martinez suburb of Buenos Aires in August. Forty workers were reported trapped by the blaze, which started about 9 A. M. from undisclosed causes. . . . Pat Buttram, a comedian who plays with Gene Autrey, cowboy actor, was critically injured when a powder charge prematurely exploded during filming of a picture near Pioneertown Palms, Calif., on Sept. 12. Mr. Autrey was blown out of a small cabin but escaped injury.

* * *

Sabotage

The Congress has officially "outlawed" the Communist party and, if reports are correct, the law passed over the president's veto to compel registration, prevent entry or departure of communists from this country and inflicting other regulatory measures, will have the

Announcing

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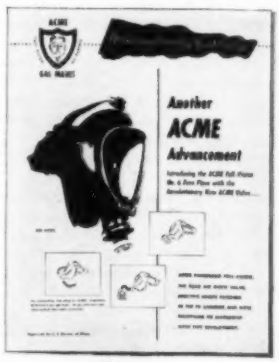

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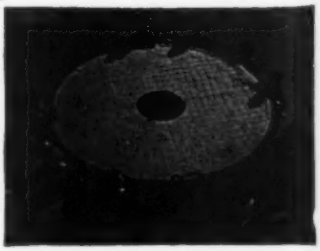

ATLAS SAFETY EQUIPMENT CO., INC.
27 WARREN ST. NEW YORK 7, N. Y.

purpose of further driving the reds underground. What effect this will have on fires by sabotage and the fire service, is problematical. Meanwhile, however, it is interesting to watch the increasing trend in fires in critical installations, causes of which are listed as "suspicious."

In South Amboy, N. J., although the blast of May 19 last has been probed and re-probed, and the National Board of Fire Underwriters has rendered its report (which offered seven different possible causes), the findings of the investigators have not been accepted in some quarters. On September 1, Representative Edward J. Hart of New Jersey announced the appointment of John J. Rafferty of New Brunswick, N. J., as the counsel of a Congressional sub-committee to investigate the causes of the South Amboy explosion. Appointment of two investigators was also announced. Sabotage was, and still is, definitely a possible cause of this "unexplained" tragedy, which cost 31 lives and property loss of near $10 million.

On September 21, a 10-hour fire swept the riverfront of the Amazon river port of Manaos, Brazil, injuring 16 persons and destroying a warehouse containing more than 1,000 tons of rubber and five other nearby buildings with property loss estimated at $1,638,000. Although the cause is as yet unannounced, it is rumored that the fire was set.

A report from Birmingham, Ala., dated September 23 said an object resembling a home-made bomb, 16 ft. long, supported by a red plastic balloon six feet in diameter, having a dynamite cap and alarm clocks, was found 12 miles from Wheeler Dam, a TVA installation. The explosive apparently had dropped out of the container while in the air. It had not exploded. It was sent to the FBI for analysis.

In Denver, Colo., Attorney General John W. Metzger said on September 15 that the Communist party had completed plans to sabotage Colorado's radio stations, utilities and state and city governments upon orders from party headquarters. Mr. Metzger said he had "unimpeachable" information that 75 party members met in Denver to perfect the master sabotage plan for the state. Each one of the 75, the report said, was given a specific job, such as bombing a radio station.

"Professional sabotage" was given as the probable cause of the blast that rocked the Voice of America transmitters at Bethany, Ohio, the Cincinnati papers reported on September 19. The statement was made by James Shouse, board chairman of the Crosley Broadcasting Co., which built the transmitters. Damage in the blast was estimated at $5,000. A high electric fence was said to have shown signs of tampering.

The explosion, early on Sunday, destroyed a shortwave radio antenna, part of an array used for Voice of America broadcasts overseas. The Bethany shortwave transmitters are reportedly the most powerful in the world.

In Damascus, Syria, the United Nations Relief Works Agency offices were blown up shortly after midnight, killing one man and injuring two others. Officials believe that the blast was either an act of vengance by an unemployed Arab refugee, or intended as a protest against the agency, which is in charge of an estimated $55 million public improvement program.

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FIRE EQUIPMENT DISTRIBUTORS ATTENTION! Add package and Liquid IMP to your line. Write TODAY for special distributor Plan.

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of September, 1950.

Month Ending September 30, 1950

Shippigan, N. B.—The plt. of the Sealand Food Corp. of Canada, Ltd., destroyed.

Phoenixville, Pa.—Barn on dairy farm of T. A. W. Myrin, near Kimberton, 3 miles west of Phoenixville, destroyed.

Marshall, Wash.—Heating packing plt. and two greenhouses of Smith Bros. florists, destroyed

Huntington, W. Va.—West Virginia Electric Co. destroyed. Adj. furniture store, combination cafe and apt., damaged.

Big Moose, N. Y.—Main portion of Glenmore Hotel, Big Moose Lake, destroyed.

Pen Argyl, Pa.—Plt. of R & R Toy Mfg. Co. destroyed.

Barrington, R. I.—Main bldg. of Rhode Island Country Club destroyed. Paint remover ignited by electric spark.

Columbia, S. C.—Apt. bldg. damaged.

Biggs, Cal.—Biggs Rice Drier destroyed.

Sacramento, Cal.—Planing mill at Central Box Co. destroyed.

Willows, Cal.—Purity Store destroyed.

Montreal, Que.—Victoria Chambers Bldg. occupied by Industrial Loan & Finance Co., Enterprise Products Co., Michael's Millinery Mart, National Import Co., Millar Studios, Stern Multigraphing and Printing Service and source publications, damaged.

Crestline, Cal.—San Mortiz Club damaged.

Indianapolis, Ind.—Dwelling of Evan L. Noyes, destroyed.

Columbia, S. C.—Business bldg. occupied by Burnett's Drug Store, Jack Evans Market, Hitchcock's grocery, Frank A. Lim laundry, J. E. Hanger, Inc., Artifical Limbs, and apts., damaged.

Asbury Park, N. J.—Ross-Fenton Farm, Deal Lake damaged.

Barrington, R. I.—Rhode Island Country Club, Narragansett Bay, destroyed.

Montreal, Que.—Four unoccupied apt. bldgs., suburban Ville St. Laurent, destroyed.

North Battleford, Sask.—Wholesale house of Marshall Wells Co. damaged.

Los Angeles, Cal.—Western Movie Supply Co. destroyed.

Newark, Dela.—Barn on Old Blue Hen Farm, destroyed.

Cedar Rapids, Ia.—Bldg. occupied by Sutton Appliance Co. damaged.

Wright City, Mo.—Wright City Mfg. Co. equip. for hardware and variety stores, damaged.

Thousand Island Park, N. Y.—Summer dwelling of Ralph J. B. Williams, Woronoco Island destroyed.

Beaverton, Ore.—Haskell shopping center, damaged.

Columbia, Tenn.—W. N. Butler & Co. grain elevator damaged.

Bluefield, Va.—Salem Hardware Co. store damaged.

Clinton, Ark.—The Oxford Canning Co. plt. destroyed.

Cincinnati, Ohio.—Plt. of Wilson Poultry Co. damaged.

Harrar, Okla.—The town's only motion picture theatre, Whittaker Grocery Store destroyed; the Proctor Grocery, Maples Drug Store, John Gresloroski's Shoe Shop, VFW Hall and the office of Dr. C. C. McAdoo, dentist, damaged. Hot roofing tar ignited by trash fire.

Philadelphia, Pa.—Whse., Barrett Div. of Allied Chemical & Dye Corp., destroyed. Explosions

Spokane, Wash.—Riverside Whse. destroyed.

Shippegan, N. S.—Sea Land Food Corp. of Canada, Ltd., destroyed. Explosions in engine room.

Montreal, Que.—Commercial bldg. destroyed.

Nashville, Tenn.—A. L. Korman Co., men's suits mfrs., destroyed. Sam Rapidus Clothing Co., Harris Davis & Co. and D. F. Siler Co. damaged.

Ridgely, Tenn.—Stephens Hotel destroyed.

Raymond, Wash.—Raymond lumber and planing mill destroyed.

Plevna, Ont.—Dwellings of John Card, Manson Kellar, Anglican church rectory and two stores, destroyed.

Roches Point, Ont.—Bldgs. on unoccupied summer estate, destroyed.

Burbank, Cal.—Auction Placa destroyed.

Greenwich, Conn.—Dwelling of Nelson Macy, detroyed.

Waterbury, Conn.—Plt. of Armour & Co., meat packers, destroyed.

Chicago, Ill.—Stable at Sunset Riding Academy, destroyed.

Marlboro, Md.—Two barns at Marlboro Race Track destroyed.

Salem, Mass.—Coal pocket and unloading ma-

Janesville

TURN OUT SUITS

Give RUGGED SERVICE

Make your next coat "Janesville" and specify "Scotchlite" trim. Either rubber or duck coats are available with "Scotchlite" trim for your protection.

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Janesville APPAREL CO.

JANESVILLE, WISCONSIN

Flashing Signal

For Emergency Vehicles

Price complete $6.50: may be supplied with automatic flasher unit $1 extra. Furnished with red or blue lens as desired. 6-inch lens 32 c.p. or 21 c.p. bulb.

Also in stock for immediate shipment complete line of

- portable lights
- rattan fire brooms
- body guard coats
- first aid cabinets
- many other fire fighting items

Send for free copy of Catalogue No. 49

FIRE-END PRODUCTS

19-21 Beekman St., New York

chinery of Salem Terminal Corp., wharf at lower Derby street, damaged. Short circuit.

Boscawen, N. H.—Two barns of Merrimack County Farm damaged.

Greenville, Ohio. — Kroger super-market destroyed.

Moxee City, Wash.—Whses. and hop kilns on farm of Louis DuFault destroyed. Sparks from stack.

Moncton, N. B.—St. George Food Shop and nine apts. above, destroyed. Home Appliance Co. damaged.

Woodbridge, Ont.—Four barns on farm of Jack Creed, destroyed.

Phoenix, Ariz.—Copper State Lumber Co. yds. destroyed.

San Francisco, Cal.—Dream Castle Tobacco Co. whse. destroyed.

Elkhart, Ind.—Downtown business bldg. occupied by Curtis Furniture Co., Owners Discount Corp. damaged.

North Kansas City, Mo.—Cook Paint and Varnish Co. plt. damaged.

Great Falls, Mont.—City whse. at Gore field, stored airport equipment, destroyed.

Tygh Valley, Ore.—Tygh Valley Lumber Co. damaged.

Needham, Mass.—Dwight elementary school damaged.

Superior, Ariz.—Framing shed at Magma Copper Co. destroyed.

Chicago, Ill.—Bassett & Vollum Co., wallpaper mfg.; St. Nick's Workshop, toy maker. Royal Assurance Agency office; H. Silverman Co., storage; Acme Industrial & Surgical Glove Co. office; Eagle Speaker Co., loudspeaker maker; Seridan Leter Service; Lawrence Whse. Co. damaged.

Hopewell, N. J.—Dairy farm, barn and two silos destroyed.

Boonville, N. Y.—Barn and garage at farm of Thomas E. Bolich, Town of Western, destroyed. Spontaneous ignition.

New Richmond, Wis.—The plastic plt. of Doughboy Mills Corp. destroyed.

Chicago, Ill.—Sunset Stables, Inc., Leyden township, destroyed.

Keesville, N. Y.—Fire that started on the roof destroyed the 56-year-old Ausable Chasm Hotel near this Adirondack village.

Winchester, Va.—Oven at the American Brake Shoe Co. damaged.

Silver Creek, Neb.—Dula grocery; Stempak liquor store; Vitamas Drug Store; Masonic Temple bldg., damaged.

Portland, Ore.—Six-story Manchester bldg., occupied by E. J. Chapman Stationery Co., Shannon Enginering Drawing Supply Co., George Riley Wholesale Millinery, Sam Block Apparel Shops, Weissmoor Fashions, damaged.

Richmond, Va.—Newman's clothing and Young Men's Shop damaged.

Grandview, Wash.—Grandview hop kilns and farm home of Ames Brulotte destroyed.

Pomeroy, Wash.—Pomeroy Whse. Milling Co., three elevators holding 350,000 bushels wheat destroyed.

Napanee, Ont.—Newburgh Milk Producers Co. plt. damaged. Boiler room.

Emporia, Kans.—Stable for show horses on farm of Ike Newton damaged.

Hannibal, Mo.—Wendt-Sonis Co. plt., damaged.

Portland, Ore.—Ore. Plating Co. damaged. Storey Tool Die Works damaged. Refrigeration Power Specialties damaged. Cole and Cohagen Janitor Supplies damaged.

Sault Ste. Marie, Ont.—Alloy Research Laboratory of Chromium Mining and Smelting Corp. damaged. Fire caused by cigarette butt dropped on exothermic material.

Fort Benton, Mont. — Two hardware stores damaged.

Belmont, Cal.—Nielson & Beaver Mfg. Co. lumber stock destroyed.

Clarkton, N. C.—Tobacco whse. destroyed.

Sunnyside, Wash.—Roy Skogen's Jewelry Store destroyed. Sunnyside Stationery Co. destroyed. Rossier Real Estate Offices destroyed.

Phoenix, Ariz.—Biltmore Manor Shopping Center damaged.

Sulphur, La.—Vacant theatre and other bldgs. damaged.

Baltimore, Md.—Woodcraft Mfg., Inc., furniture factory destroyed.

Princess Anne, Md.—Griffith's Five-and-Ten Cent Store, American Store, Arden Inn., destroyed. Undetermined explosion.

West Orange, N. J.—Goldman's Hotel damaged.

Warren, Ohio—Griswold company whse. damaged.

Klamath Falls, Ore.—Suburban Lumber Co. destroyed.

Knoxville, Tenn.—Rohm & Haas chem. plt. damaged.

Goderich, Ont.—Knox Presbyterian Church destroyed. Fire caused by rubbish pile beside church.

North Hampton, N. H.—Barn on farm of Erwin Fuller destroyed.

Zanesville, Ohio—Second floor of whse. occupied by Byron Boring Furniture Co. stores damaged.

Burbank, Cal. — Burbank Auction Palace destroyed.

OREN
FIRE APPARATUS

ONE OF 4
1000 G. P. M.
OREN
MODEL 1600/1000
PUMPERS
SERVING ROANOKE VIRGINIA
. . . (You Can't Fool Your Own Hometown!)

OREN ROANOKE CORP.
ROANOKE 16, VIRGINIA

NEW WAY
to make rescue!

FIRE DEPT. MODEL

Today's laddermen lower victims on the DAVY automatic Fire Escape. Just hook onto ladder rung—place strap under victim's arm pits—lift out of window and the DAVY does the rest. Lowers victim slowly and leaves ANOTHER strap to lower second victim. Any number of people can be lowered FASTER and SAFER with NO RISK to either victim or fireman.

HOTELS and INSTITUTION MODEL

Proven in over 40 years' use in Europe and America. Will lower person 20 stories in about one minute—soon as one person reaches ground another strap is ready for second person and so on—FASTER than raising a ladder—safer than any other rescue device—fully automatic—lasts for years and years. Recommend it now before catastrophe occurs!

DEALERS

Fire Depts. everywhere are in immediate need of the "DAVY" Automatic FIRE ESCAPE. Sell one model to all fire depts., sell another model to hotels, etc. Write for dealer proposition.

DAVY AUTOMATIC FIRE ESCAPE CO.
Colvin Station, Box 51, Syracuse 5, N. Y.

MORNING PRIDE FIRESUITS

FLEECE LINED

Rubber

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Detachable Linings

MITTENS - SUSPENDERS

Morning Pride Mfg. Co.

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DAYTON (7) OHIO

CARPENTER LIGHTS

HIGH POWER PORTALITE

The finest dry battery portable light made. Mile range. Powerful searchlight beam for 8 to 10 continuous hours. Instantly ready for any fire. Diameter 6". Size 14" high x 10" x 6". Only 9 lbs.

WRITE FOR FOLDER

"Master-Light-Makers for 34 years"

CARPENTER MFG. CO.

200 Master-Light Bldg.

BOSTON-45-SOMERVILLE

MASSACHUSETTS

Jury Verdict

(*Continued from page* 823)

spread through the car. The rear doors were opened by the conductor and a few people escaped. However, as the passengers rushed for the opening, the doors were forced shut. It is the opinion of the Jury that the emergency facilities on the so-called President's Conference Committee cars of the CTA are entirely inadequate. The doors will not open if there is pressure on the inside. Furthermore, if the car should turn over on its right side, all exit facilities are blocked except that provided by rear windows.

5. The Jury believes that the speed of the P.C.C. cars of the CTA is sometimes excessive for city traffic conditions.

6. The transportation of gasoline is an inherently dangerous operation. The fact remains, however, that the people of the City of Chicago require a certain number of gallons of gasoline daily. This is supplied by tank trucks and railroad cars and both are needed to meet the diversified needs of a large city. At the outset, the Jury agrees that it is impossible to determine the quantity that would be a safe amount of gasoline. Every city is faced with the problem of bringing in large amounts of this hazardous liquid either in a tremendous number of smaller vehicles, or a smaller number of large vehicles, and experience seems to show that the larger vehicles operating under control and careful supervision of the local authorities as to route, construction, and time of day, constitutes the best method. While it is not possible to make local deliveries throughout the city during the night, it is possible for the bulk trucks, such as the vehicle involved in the accident, which make deliveries to bulk stations, to operate only at specified times when the exposure to traffic will be at a minimum.

7. The motorman of the street car had been involved in ten accidents during the preceding 16 months. It would seem that this record would have warranted special attention:—for example, physical re-examination, check riding, and re-training being given to this man prior to the fatal accident.

Recommendations

Based in the foregoing conclusions reached, the Jury offered these recommendations:

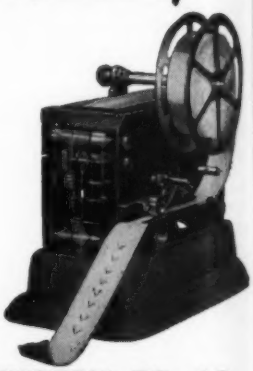
1. An intensive effort should be made to provide adequate drainage for the underpass (in question) . . . and for all others subject to flooding, particularly where the street is used by street cars or bus lines. With increasing volume of traffic, these will become a still more serious source of delays and an indirect cause of accidents. (The Jury pointed out that underpass drainage is only part of a large sewer problem, the main obstacle being not technical but financial and urged a new approach to the situation.)

2. All transit vehicles should be equipped with an emergency exit or exits on the left side as is now common in aircraft and school buses.

3. The doors of all transit vehicles should be designed to remain in the open position when opened for emergency purposes. They should also be so designed as to open regardless of internal pressure.

Record Fire Alarms Automatically

with the



HARRINGTON PR-10

PUNCHED TAPE REGISTER

This punched tape register automatically and accurately records fire alarms or other emergency signals when they are transmitted through central fire alarm stations, outlying fire stations, police department offices, water works, etc., circuits.

HARRINGTON SIGNAL COMPANY

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In Canada:

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INVINCIBLE NOZZLES

Fireboat Tower Nozzle

with full Transverse Control

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Figure 114-B —one of many— made by pioneers in nozzle manufacture.

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"ALL AMERICAN CHOICE"

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Latest Design

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Operated by Remote Control

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Boston, Mass.

1837 — 1950

4. As soon as practicable, remove the permanent fastenings from the left rear window of the P.C.C. cars so that both rear windows can be swung open in an emergency.

5. Consideration should be given to replacement of the present bars on street car windows with devices easily removable in the event of an emergency.

6. Before and whenever any manually operated track switch in a street is blocked open, a temporary warning signal should be placed between the rails beyond the switch. This should have a target area of at least two square feet by day and illumination by night equal to at least two pot torches or flares. These signals should be so constructed that they will do little damage to a vehicle should they be struck. Emergency and cruising supervisory vehicles of the CTA should carry such signal equipment.

7. Special distinctive and conspicuous belts with shoulder straps should be provided for all flagmen who work in city streets. These should be reflectorized for night operation. Emergency and supervisory cruising vehicles of the CTA should carry such equipment.

8. All transit operators should have a complete physical examination at least once every six months.

9. The CTA should re-study its entire accident prevention program for operators giving special attention to its methods of handling accident repeaters, to make use of the most modern methods of dealing with operators who have become conspicuous because of their accident records.

10. Legislation should be enacted which will bring all operators of street cars and trolley buses under the same speed limitations as those applying to the operators of motor vehicles.

11. All tank trucks should conform to standards comparable to those published by the National Fire Protection Association.

12. Bulk deliveries of gasoline or liquids of comparable hazard in amounts of over 1200 gallons should be made only over routes designated by the City authorities and only between the hours of midnight and 7:00 A.M., with the exception of Sunday, when no bulk deliveries shall be made. This restriction should not apply to tanks which are divided into compartments not exceeding 600 gallons each.

The Jury concluded with an admission that the problem presented in transporting hazardous materials and large numbers of people on the streets is not easy of solution and urged the City to make a thorough and long range study of all the ramifications of the situation so as to provide a permanent, practical, and safe solution to the problem.

Good Samaritan

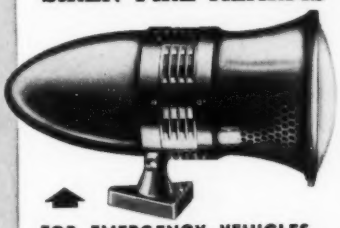
(*Continued from page 829*)

and outlook on life. Little Irene came home as September waned, a new child.

But the story doesn't end with Irene's rehabilitation. Her little brother, too, is a cripple as the result of a fall five days after Irene suffered her burn. His broken right arm failed to straighten and so the Chief and the Elks Club Cripple Children Fund—together with interested members of the Lodge, will sponsor a dance locally to raise funds to pay for the brother's hospitalization and treatment.

STERLING SIRENS

NOT BY CHANCE . . . First in Precision Manufacturing of High Grade SIREN FIRE ALARMS



STERLING, for years has combined highest quality materials with precision manufacturing to provide sirens that will operate reliably year after year without failure. There's a STERLING Siren for every emergency use.

FOR EMERGENCY VEHICLES
Model 20 SIRENLITE • Powerful Flashing Beam • Smooth Operation • Streamlined • Chromium Finish • Dependable Service

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USE VISUALCAST FOR YOUR CIVILIAN AND SPECIAL DEFENSE TEACHING

Dealer inquiries invited.

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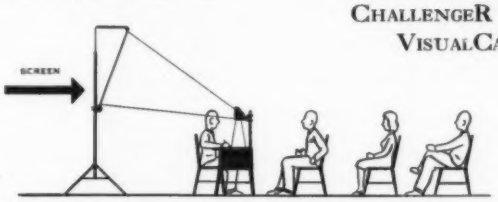
CHALLENGER Model VISUALCAST



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STOP PROPERTY DAMAGE AFTER THE FIRE IS OUT WITH SPRINKLER STOPPER

Instantly stops further damage by water after the fire is out. Rest of the building protected in case of further outbreak.

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SPRINKLER STOPPER CO.
170 SO. VAN BRUNT STREET
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Dealers Wanted!

Sell NEW Type Automatic Home Fire Alarm System AND MAKE BIG PROFITS!

Can Be Quickly Installed by Purchaser

$39.50

Less Liberal Dealer's Discount

U.L. Approved Rate-of-Rise Detectors

COMPLETE IN 1 PACKAGE

Every home is a prospect for this low cost FIRE-LITE Automatic Home Fire Alarm System. It detects fire instantly and sounds a shrill, loud alarm. Anyone can easily install it. Protects entire home. FIRE-LITE is equipped with a control cabinet, relay panel and test switch, a long life battery, two automatic fire detectors, 100 feet of insulated wire, a loud bell, insulated staples and a wiring diagram. Sell one homeowner and you'll sell his neighbors and friends!

Write TODAY for a Dealership

FIRE-LITE ALARMS
170 Shelton Ave., New Haven, Conn.

Valdosta Boasts Latest in New Stations

Valdosta, Ga., has opened its second fire station at Woodrow Wilson Drive and Williams Street to the gratification of its fire department, Chief Thomas M. Cook, in command.

For the present the new station will house a pumper, with six men, working two shifts. The structure is of one story, masonry construction, except for the roof which is covered with asbestos shingles. The house consists of living quarters, a kitchen and dining room, as well as a lounge for the men and an office for Chief Tom Cook.

The apparatus floor is large enough to house a full size aerial ladder and two pumpers. At the rear of the apparatus room there is adequate space for work benches and equipment for maintenance work on the apparatus. The apparatus floor is provided with drain to permit vehicles to be washed in their regular parking positions.

Two overhead doors are controlled by pull cord at the drivers' seats. At the rear of the equipment room, a corridor leads to the living quarters. A bedroom on each side of the building has space for six beds. Adjoining the bedroom is a complete bath with three showers. Lockers are provided for personal property of personnel.

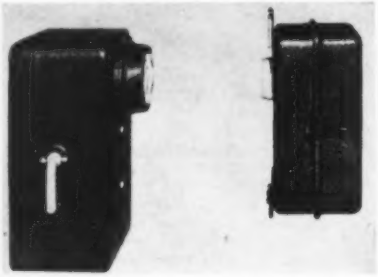
On the west side of the corridor, at the rear of the building, is the completely equipped kitchen, with stove, refrigerator, hot water heater, sink and pantry. Adjacent to the kitchen is a dining area which opens into the lounge or living room. The latter has several windows and is well ventilated.

Chief Cooks' office is located between the lounge and equipment room. West of the lounge is an entrance porch with ornamental railing. The entire building has a concrete floor except for the locker rooms and bath, which have tile floors.

News of the Manufacturers

Photoelectric Smoke Detector

Photoswitch Incorporated announces a new photoelectric smoke detector for air conditioning duct systems. It is recommended for use in stores, theatres, hotels and other locations where the presence of smoke is a hazard to property or a possible cause of panic.



Photoelectric Smoke Detector

Duct systems have the inherent danger of spreading smoke and fire quickly throughout a building and in many instances have actually drawn a fire from the outside of a building through the air intake systems.

TRAFFIC LIGHT

Why waste manpower?

The TL will stop traffic for you. Portable, battery operated warning signal or flare. Flashes a 360° red beam 60-80 times per minute. Eliminates dangers of burning oil flares, especially in the presence of gasoline vapors.

All cast aluminum. Complete with flasher, switch and chain. **$12.75**

ARGUSLITE CO.
BLUE RIDGE SUMMIT, PENNA

WENTWORTH'S
CUSTOM-MADE
"HEAD-MASTER"
UNIFORM CAPS
Union Made Prompt Delivery

Wentworth Fireman Caps are made of the Highest Quality Standard Materials available. They are made in all the New and Standard styles by the Best Skilled Union Craftsmen. Over 50 years of experience and skilled workmanship guarantees you AMERICA'S GREATEST CAP VALUE in all WENTWORTH FIREMAN CAPS.

Write direct for latest circular and prices or see your local dealer.

AMERICA'S UNIFORM CAP HEADQUARTERS

WENTWORTH
FORMAN CO., INC.
21-23 EDINBORO ST., DEPT. F.
BOSTON 11, MASS.

The purpose of this control is to detect the presence of smoke. At the first sign of smoke the smoke detector operates, and through auxiliary relays (not included) may automatically turn off blowers, close automatic shutters and signal the maintenance department.

The Photoswitch is supplied with a light source. They are designed for mounting on opposite sides of the duct.

Among the features of this system are a sensitive photo-electric circuit with fail-safe circuit design and a tamper-proof sensitivity control to prevent unauthorized adjustments. Additional information is included in Bulletin PE 505 issued by Photoswitch, Inc., 77 Broadway, Cambridge, Mass.

Howe Issues Novel Catalog

Howe Fire Apparatus Company, Anderson, Ind., which proudly advertises it has built fire apparatus since 1872, has issued a novel catalogue: *Fire Equipment Catalog B.*"

In addition to describing the entire Howe line of fire apparatus—including the latest high pressure fog triple combination units, the catalog pictures and describes the products of many fire equipment and extinguishing agent manufacturers, which may be had with Howe equipment.

The catalog, of 82 pages and cover, loose-leaf, should be a useful addition to every fire chief's library.

Chicago's Atom Defense Gets First Test

Chicago, which has developed a comprehensive civil defense plan for meeting an atomic attack, linked to the planning of nearby cities, staged its first large scale test of the program the last week in September.

Experts of the National Securities Resources Board ordered three imaginary A-bombs exploded in different sections of the city. Theoretically, the bombs killed 106,000 to 129,000 persons, injured 100,000 and destroyed more than 12½ square miles of the nation's second largest city.

More than 700 observers, including four Governors, twenty Mayors, thirty government experts, scores of fire, police and defense chiefs and representatives of Great Britain, Canada and Hawaii attended the N.S.R.B.'s five-day critique of the defense measures. According to Eric H. Biddle, N.S.R.B. consultant on civil defense, the results of the Chicago test will be used to develop an over-all national blueprint for stations and communities preparing defense plans.

The test is said to have demonstrated the wisdom of organizing civil defense within the framework of existing municipal agencies. In this respect, the fire department played a prominent part in the program and in operations. Chief Fire Marshal Anthony J. Mullaney, who headed the department through the World War II, is one of the two coordinators who directed the test, under Mayor Martin H. Kennelly. The other is Victor C. P. Dreiske, former navy commander and vice-president of J. Walter Thompson advertising agency. Responsible to them are a number of co-directors including Lloyd M. Johnson, Commissioner of Streets, Police Com-

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Specify HALE

HALE FIRE PUMPS are built in all STANDARD CAPACITIES

VOLUME *and* PRESSURE are both vital in controlling or stopping disastrous fires.

Firefighters who have used Hale FIRE Pumps *know* they can depend on a HALE for the right volume and the right pressure to fit a wide range of tough fire-fighting conditions.

In other words, they have learned through first-hand experience to appreciate a Hale's flexible range of performance and high efficiency.

Make sure of dependable *Volume* and *Pressure* in your next piece of apparatus by insisting on a Hale Fire Pump.

Write today for up-to-date bulletins on HALE FIRE PUMPS; they are built in all standard capacities.

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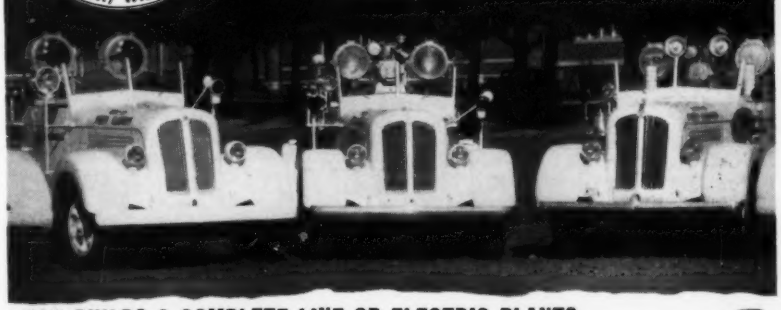
CONSHOHOCKEN, PA.

UNITED STATES MOTORS CORPORATION — US — OSHKOSH, WISCONSIN

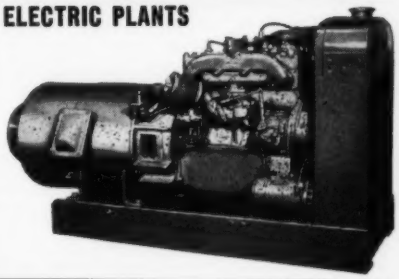
...can throw light on your problems, too!



"US" BUILDS A COMPLETE LINE OF ELECTRIC PLANTS

"US" Portable Electric Plants furnish power for the searchlights on these New Haven fire trucks serving in the center of Connecticut's industries.

"US" units are famous for economy of operation, accessibility, rugged construction, and above all—**dependability.** Complete line includes units from ½ to 200 KW. Write for information.



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430 Nebraska Street, Oshkosh, Wis.

NOW! Receive Fire Calls at Home or in your Car

No fire officers (regular or auxiliary) should be without this essential piece of equipment. For with the new MONITORADIO 6-Volt Mobile FM Radio Receiver you can follow dispatch directions instantaneously. A complete receiver — not a converter! Covers all 2-Way FM Radio-Telephone Communications. Well-engineered and built of quality parts. Tunes frequency of 152 to 163 megacycles. For full information, see your parts jobber or write us today!

$72.50 NET

Also, AC-DC Model PR-31 for 30 to 50 Megacycle Band and AC-DC Model PR-8 for 152 to 163 Megacycle Band — both models $44.95 each NET.

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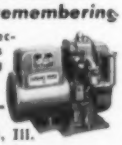

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missioner John C. Prendergast, Health Commissioner Herman N. Bundesen, City Architect Paul Gerhardt, Jr., Commissioner of Superhighways Virgil E. Gunlock and others.

Detailed plans have been developed by forty-three committees whose memberships consist of top experts in their fields. The Chicago Fire Department would play a key role in a bombing attack. The department would be alerted by a yellow (confidential) alarm transmitted as 9-9-9-9 on its telegraph system.

Upon receipt of that signal, 62 per cent of the city's fire apparatus and more than 2,000 firemen would immediately leave for fourteen points outside Chicago's boundaries. Fire apparatus are allowed to use sirens when responding to alarms in Chicago, but will not be allowed to sound them during an alert, it is said.

Loop fire companies would take shelter in an unused street car tunnel under the Chicago River. Two fireboats in the central area would head three miles out into Lake Michigan. The fire forces would return to the explosion scene after the all clear. The city's firefighters would be aided by eighty pieces of equipment from surrounding communities. Plans are under way to recruit and train 10,000 auxiliary firemen to augment the force of 9,600 trained by the city during the war.

The civil defense plan also envisages housing 35,000 refugees in parks and vacant lots, using buses to transport skilled workmen to the areas for rehabilitation and shelter. Emergency traffic routes will be closed to all except official vehicles after a bombing. Plans call for blocking off all but 200 miles of the city's 3,500 miles of streets. The Police Department's 413 automotive vehicles, equipped with radio, would be mobilized to aid the mobile communications system. At present most of the city's fire apparatus is not radio equipped.

The program attempts to cover every detail, even to the tattooing of their blood types on the anatomy of citizens, to aid identification.

Near Tragedy at Tadoussac

Early on the night of August 14 last, fire swept the 7,000-ton luxurious cruise ship Quebec resulting in the death of five and possibly seven victims. Ten days after the fire, which gutted the vessel, two passengers remained unaccounted for and five were listed as dead.

The Quebec, owned by the Canada Steamship Lines—the same company that owned the ill-fated Noronic—took fire when the ship was about 20 minutes steaming distance of the tiny Sagunenay river port of Tadoussac. The ship was bound for Bagotville from Montreal with a reported 400 passengers and crew of 150, when fire was detected forward of midships on "B" deck.

The vessel's veteran master, Captain Cyril H. Burch, immediately sounded the ship's fire alarm, ordered all passengers to don lifebelts and muster for debarkation. At the same time he headed the vessel at full speed for the dock at Tadoussac which was reached about 5:40 P.M. Meanwhile, the crew was employed fighting the fire and conducting a search of all parts of the vessel to be certain everyone was accounted for.

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TRIPPE FRONT AND REAR FLASHER LIGHT CLEARS THE WAY

A gleaming, chromium Beauty, 7½" in diameter that sends its RED warning front and rear at 60 times a minute. In spite of its size it is very light and easily mounted on its aluminum pedestal.

Quality for which TRIPPE is famous, plus its extremely low price makes this Type FRF-1 a **must** for all fire equipment.

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Any fireman can have a catalog by writing —

BODY-GUARD MANUFACTURING CO.

ST. JOSEPH - - MISSOURI

According to the Company's statement "all automatic and other fire fighting equipment functioned perfectly." However the fire spread, despite all efforts of the crew, until it took possession of the upper decks, including the boat deck. Just how or where the passengers who became victims of the blaze were missed in the search will doubtless never be known. It is said, however, that there was no panic and passengers had "ample time to disembark" once the ship was docked.

Search of the ruined interior the following morning disclosed the bodies of three victims, two adults and a child. As the search continued the number of casualties increased. None of the bodies could be immediately identified.

The fire broke out either in a stateroom or a linen closet, it is reported, shortly after 5:00 P.M., while most of the passengers were getting ready for dinner. One witness said the fire started directly above his cabin which was number C-21 on the port side. This would place the origin on "B" deck. The ship rapidly filled with smoke but according to witnesses it was not until the vessel got almost to the dock that flames started to shoot out of the ship.

Once docked, the passengers were rapidly taken off the ship, most of them by ladders. It was not long before fire fighting operations had to be abandoned as the engine room became untenable. Soon after the cessation of all fire control effort, the fire ate rapidly throughout the interior and the entire three decks fell in twisted wreckage into the burned-out hull. Only the two stacks remained in place. Within an hour the ship was completely gutted.

So quickly did passengers leave the ship, there was little time to save more than the clothing they wore. Members of the crew reported that there was no chance to lower any of the lifeboats because all of them were unapproachable.

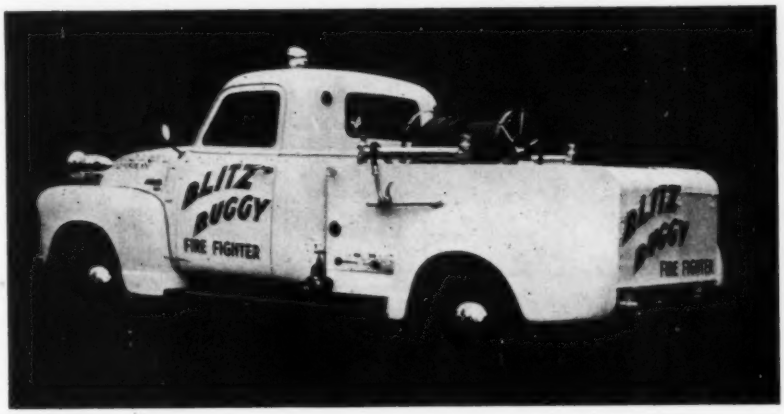
As is to be expected in disasters of this nature, there is no agreement on all details. Some witnesses placed the start of the fire on the starboard side, some on the port. One passenger said the crew fought the fire after the ship docked for two hours; others report fire fighting was given up not long after the vessel berthed. That the crews did use hose lines as well as extinguishers in the effort to stem the spread of the fire is shown in some illustrations by the water cascading off the decks. However, to the fire fighter's trained eye this would tend to indicate that not all the water was getting anywhere near the flames.

Even before the ship docked, and it was evident that the vessel was in distress, company representatives started preparations to receive the passengers. As rapidly as possible they were taken by buses to the local hotel and given food and the best possible comforts available. Tadoussac is a small, picturesque French-Canadian town, about 40 miles from Bagotville, on the Saguenay River, some 140 miles from Quebec.

As the wreckage burned like a bonfire through the night, passengers and crew members who took time to analyze their escape gave thanks for narrowly participating in a tragedy that would have made the Noronic catastrophe insignificant by comparison.

The situation is summed editorially by the Montreal Daily Star as follows:

Really NEW and Readily Available



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600 lb. hi-pressure fog—carries its own water—simple to operate—gets there fast and does a REAL job . . . .

Perfect Answer for Industrial Plants Fire Protection

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Not encumbered with equipment rarely used, but a complete unit ready to strike.

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*"P-E-M"—PORTABLE ELECTRIC MEGAPHONE—It amplifies the voice 2500 times!

Each year lives are lost because of failure to hear commands. But with Audio Portable Electric Megaphones (Audio P-E-M) the voice is amplified 2500 times! Orders are heard with clarity, obeyed with precision and lives are saved!

Audio Portable Electric Microphones enable fire chiefs to direct men at fires, even in smoke-filled rooms, guide rescue workers, assist on the training grounds, giving instant warnings of grave dangers which otherwise cannot be heard in time to get people to safety.

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80-20 45th Ave., Elmhurst, L.I., N.Y.

Fires won't wait while you struggle with unwieldy hose.

That's why experienced firefighters have preferred *Hewitt Fire Hose* for over 75 years!

They know it is light and flexible for fast action . . . yet rugged for long life. They know, too, that its quality construction minimizes elongation and twisting . . . assures high burst-resistance.

Learn how *Hewitt Fire Hose* can help you. Write today.

HEWITT RUBBER DIVISION
240 Kensington Avenue, Buffalo 5, New York

HEWITT FIRE HOSE

HEWITT-ROBINS INCORPORATED

"When the Noronic burned at its Toronto dock last fall, it was generally believed that had the fire broken out in mid-lake instead of the harbor, the survivors would have been few. Now the Quebec has caught fire, not in harbor but fortunately only a few miles from the Tadoussac dock. Smart handling of the vessel and a crew fortunately able to preserve passenger morale prevented either panic or heavy loss of life. But the narrowness of the escape is obvious."

As with the Noronic tragedy, the ruins had hardly cooled before "immediate probes" were ordered by the Canadian Government.

Property loss has been estimated at $1,000,000 but it is said the figure will greatly exceed that amount.

Former Chief Wentz Dies

Joe H. Wentz, former chief of the Charlotte, N. C., Fire Department and one of the oldest living retired firemen in North Carolina, died September 24th. He was over 77 years of age.

He entered the fire department in 1888 and retired in 1932, after more than 40 years active duty. He was a member of the North Carolina Firemen's Association.

Members of the Charlotte Fire Department acted as pallbearers. Surviving are his widow, a daughter, five sons and a sister.

Brooklyn Responds to 12 Alarms in 50 Minutes

Alarms rang into Brooklyn, N. Y., fire houses at a rate of more than one every four minutes on June 27th last, resulting in the movement of nearly every piece of apparatus in the Borough and giving Brooklyn's firemen the busiest fifty minutes in memory of veteran fire fighters.

Twelve separate calls were recorded between 1:50 and 2:40 P.M. One was for five alarm fire that swept seven dwellings and another for a two-alarmer in the heart of the borough. In addition, ten single alarms—one for a fire in a lumber yard; two for grass fires; six for fires in dwellings, and one an ill-timed false-alarm—gave firemen plenty of action.

While 100 firemen and 35 pieces of apparatus under command of Fire Chief Peter Loftus struggled to control a fire which started at 325 Van Sinderen Ave. and spread through six other two-story frame dwellings, necessitating five alarms before 2:18 P.M., another blaze at 2:25 P.M. in an unoccupied five-story brick hotel at 147 Washington Street called for additional help. Considerable reshuffling of Brooklyn apparatus resulted from the many alarms. Fire department officials said there was no apparent connection between the various fires, although causes of some of them were not immediately establishd.

Chief Allan Clark Honored

Fire Chief Allan H. Clark, of the Lakefield, Ont., Fire Department, and popular secretary-treasurer of the Dominion Association of Fire Chiefs, received unexpected honors from his city officials in recognition of his 25 years service as fire chief.

At the close of a regular drill session of the Department, Mayor William Grant ordered all hands to meet with him and the Town Council in the Municipal Building where, after a surprise stag party, the Mayor presented the astonished chief Clark with a leather traveling bag.

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Closing date for copy 25th of month preceding date of issue.

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DIAMOND T—FLOOD LIGHT

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American-LaFrance 1000 gallon pumper. Engine overhauled and all bronze pump rebuilt this year. Good paint and pneumatic tires. Must be inspected to be appreciated.

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FOR SALE

Fire Truck Tanker, 800 gallon booster tank on KB-7 International with two pumps, front end Champion Hi-Low pressure, 300 G.P.M.; 120# pressure to 60 G.P.M. 700# pressure midship 200 G.P.M. pump also. Completely equipped 30' and 12' aluminum ladder, 40' suction hose, two reels heated with 300' ¾" high pressure hose. Extinguishers, pike pole, axe, flasher siren, lights, etc., large compartment and tool box in rear. This truck is priced to sell and a real buy. Will demonstrate on request. Telephone Rock Island, Illinois 8-3222, or write, wire P.O. Box 414, Rock Island, Illinois.

WANTED

Dealers in Mid Atlantic and Eastern States. To sell a complete, high grade line of Fire Extinguishers and Fire Department supplies. Needed full or part time. Prompt delivery. Write to Box 185, c/o FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

PLEASE BE PATIENT!

The response to our August advertisement in FIRE ENGINEERING exhausted our present supply of famous Halligan Tools. Orders will be filled as fast as tools are available. Thank you!

HALLIGAN TOOL COMPANY
1505 Metropolitan Ave.
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WANTED

Salesmen wanted to sell popular brand of fire apparatus on commission basis. Some very valuable territory open at the present time. Write to Box 190, c/o FIRE ENGINEERING, 24 West 40th St., New York 18, N. Y.

FOR SALE

20—3½-gal. C.T.C. fire extinguishers on wheels. Popular Brands. All in 1st class condition. Less charges. Shipped prepaid, $37.50.

CARL RICHTER
716 Seiler Ave.
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FOR SALE

Used Circul-Air Hose Dryer
Best offer by November 1, 1950
Call or Write
ARBUTUS VOL. FIRE DEPT., INC.
Box 7476, Baltimore 27, Maryland
Phone Arbutus 899

WANTED

Dealer—Distributors to sell fire apparatus manufactured by well-known Factory. Also popular line of high grade fire hose. Prompt Delivery. Attractive proposition. Address Box 15, c/o FIRE ENGINEERING, 24 West 40th St., New York 18, N. Y.

SALESMEN
FULL OR PART-TIME

To Sell well known fire apparatus and fire hose. Some choice territories open. Address Box 180, c/o FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

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Salesman Wanted to handle sale of personal initialed individualized belts, buckles, cap badges, tie holders, miniature authentic replicas, police, fireman's badges, pocket pieces, key chains, etc. 2000 emblems. Particularly suitable for small volunteer groups in small communities. Write for special outfit offer.
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ALL FIRE DEPARTMENTS

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FIT INTO SMALL SPACE
Compact, self-contained Onan Electric plants can be ordered as standard equipment with many makes of new fire trucks. Just a few square inches of mounting space required for installation on old trucks.

Write for FREE Folder!

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Onan D.W. ONAN & SONS INC.
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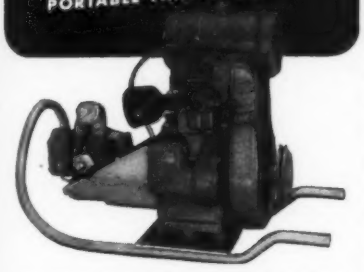
PACIFIC PUMPER
—AMERICA'S "No. 1" PORTABLE FIRE-FIGHTER!



Powerful, dependable, and easy to transport, Pacific Pumpers conform perfectly to fire protection needs in forests, industries, resorts, small communities. The Model W, most recent addition to an extensive line, is powered by a 4-cycle air-cooled engine, delivers 14 g.p.m. at 300 p.s.i. or 22 g.p.m. at 50 p.s.i., weighs only 90 lbs. Write for helpful literature on portable pumpers, and catalog of hose, nozzles, fire-fighting accessories.

PACIFIC Marine Supply Co.
FIRE EQUIPMENT DIVISION
SEATTLE 1, WASHINGTON

Carbon Dioixde Subdues Hay Fire

The ability of carbon dioxide to successfully control smouldering hay was recently well demonstrated, according to the Bellingham (Wash.) Herald-Sun (July 16, 1950).

On July 12 a neighbor passing the farm of John H. Richardt, Route 2, Everson (near Bellingham) noticed traces of smoke scaping from beneath his barn. Realizing the possibility of spontaneous ignition of some 50 tons of hay stacked in the barn, he notified owner Richardt, who summoned Volunteer Fire Department, District 3, under Chief Chuck Porter, and George Manchester, owner of a grinding business in Bellingham.

The latter closed his shop and caught up several tanks of carbon dioxide on his way out. At the farm, located about a quarter of a mile north of Nugents Corner on state secondary highway, he joined the group, including alerted local farmers.

Of the 50 tons of hay in the barn, about 10 tons was baled; the rest was loose under the cover. The smoke from the smoldering pile was beginning to streak from the space under the building.

The group, including the volunteer firemen under Chief Porter, and Manchester, first took a length of ⅛ in. pipe and probed under the stack. Leaving the pipe in various locations beneath the hay for a moment, they were able to tell from warmth of the pipe the location of the hottest spots.

In the experiment on the Richardt farm, the carbon dioxide was shot over the stacked hay. After each time, the piping was probed under the stack in order to determine the effectiveness in the location and to detect other hot spots.

According to Manchester, it took about an hour and a half before the threat was totally eliminated. When the smoldering had been checked, the group of neighbors pitched in and cleared the hay from the barn. A slight amount, Manchester said, broke into flame when removed to the open air.

Reinhardt estimated that the value of property and equipment saved by the use of carbon dioxide, was close to $10,000. About 100 pounds of Carbon dioxide was used to quell the smoldering hay. "It was the first chance we have had to see how much is necessary to cut the various intensities of flame, and also to get an idea of how much time is needed to extinguish it," Manchester said.

RALF HENNES, Inspector

Convention Dates

Oct. 16-18—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Omaha, Neb. Secretary-Treasurer, Russell D. Salak, Schuyler, Neb.

Oct. 19-21—ILLINOIS FIREMEN'S ASSOCIATION. Annual meeting, Alton, Ill. Secretary, Chief Roy W. Alsip, Fire Headquarters, Champaign, Ill.

Oct. 26-27—CANADIAN FIRE CHIEFS CONFERENCE. University of Toronto, Toronto, Ont. For information contact William J. Scott, Provincial Fire Marshal, Toronto, Ont.

Oct. 28-29—NATIONAL FIREMEN'S ASSOCIATION. Second organizational meeting, Hotel William Penn, Pittsburgh, Pa. Secretary, Dale Hogg, 1431 Parkview Road, Lyndhurst 24, Ohio.

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(F. E. Boren, Chief, Fire Dept., Silver City, N. M.)

Write for our catalog No. G-60, samples of materials, and measurement form.

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New York 16, N. Y.

DO YOUR CIVIL DEFENSE PLANNING NOW!

It may be later than you think!

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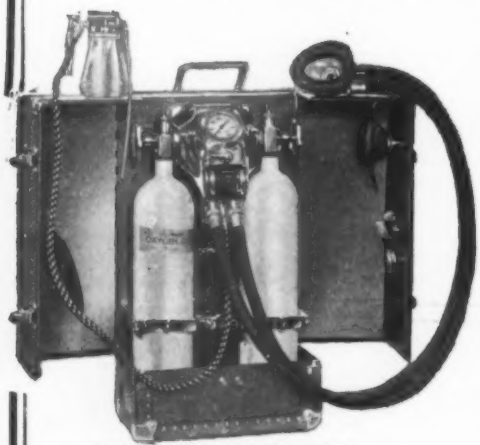

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(Goodner Model)

has features of special value to you in the event of some serious catastrophe.

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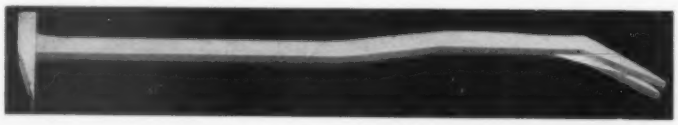

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"Trumpet" utility bars are forged from Hi-carbon steel and flame hardened for unusual strength and durability. Now available for shipment out of stock. See your Wooster Brass representative or write direct.

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ADVERTISING INDEX

FIRE ENGINEERING
OCTOBER, 1950

	Page
Acme Protection Equipment Co.	858
Akron Brass Mfg. Co., Inc.	796
Aluminum Ladder Co.	856
American-LaFrance-Foamite Corp.	809
American-Marsh Pumps, Inc.	801
Ansul Chemical Co., Fire Extinguisher Div.	843
Approved Fire Equipment Co.	850
Arguslite Company	864
Atlas Safety Equipment Co., Inc.	858
Audio Equipment Corp.	867
Bar-Way Mfg. Co.	850
Bean Mfg. Co., John	792
Blackinton & Co., V. H.	845
Body Guard Mfg. Co.	866
Boyer Fire Apparatus Co.	857
Braxmar Co., C. G.	852
Buckeye Iron & Brass Works	857
Cairns & Brother	858
Carpenter Manufacturing Co.	862
Circul-Air Corp.	854
C-O-Two Fire Equipment Co.	853
Darley & Co., W. S.	859
Davy Automatic Fire Escape Co.	861
Duo Safety Ladder Corp.	798
E and J Manufacturing Co.	799
Elkhart Brass Mfg. Co., Inc.	849
Emerson Co., J. H.	Inside Front Cover
Eureka Fire Hose Div., U. S. Rubber Co.	839
Everson-Ross, Inc.	803
Fabric Fire Hose Co.	789
Fairbanks, Morse & Co.	866
Federal Enterprises, Inc., Signal Div.	787
Fire-End Products	860
Fire-Lite Alarms	864
Firewater Company, The; Div. of the Pacific Supply Co.	860
Foard & Co., F. C.	860
Fog Nozzle International; Div. of Akron Brass Mfg. Co., Inc.	796
Four Wheel Drive Auto Co.	Back Cover
Gamewell Co.	810
Goodrich Co., B. F.	791
H & H Truck Tank Co., Inc.	840
Hale Fire Pump Co.	838; 865
Harrington Signal Co.	862
Hedberg, J. N.	855
Hewitt-Robbins, Inc.	867
Hi-Pressure Fog Equipment Co.	867
Howe Fire Apparatus Co.	854
International Bronze Tablet Co., Inc.	869
Janesville Apparel Co.	860
Kim Hotstart Mfg. Co.	844
Koehler Mfg. Co., Inc.	842
Kohler Company	859
McIntire Brass Works, F. N.	862
Mack Mfg. Corp.	797
Mars Signal Light Co.	834-835
Maxim Motor Company	804
Midwestern Mfg. Co.	841
Mine Safety Appliances Co.	794-795
Morning Pride Mfg. Co.	862
Motorola, Inc., Communication Div.	806
National Foam Systems, Inc.	846
Oberdorfer Foundries, Inc.	848
Onan & Sons, Inc., D. W.	869
Oren-Roanoke Corp.	861
Pacific Marine Supply Co., Fire Equipment Div.	869
Pirsch & Sons Co., Peter	Inside Back Cover
Powhatan Brass & Iron Works	855
Quaker Rubber Corp.	847
Radio Apparatus Corp.	866
Republic Rubber Div., Lee Rubber & Tire Corp.	800
Rockwood Sprinkler Co.	805
Russell Uniform Co.	869
Safety First Co.	802
Scott Aviation Corp.	851
Seagrave Corp., The	807
Shepherd Mfg. Co.	856
Smith & Co., D. B.	793
Sprinkler Stopper Co.	864
Stephenson Corp.	870
Sterling Siren Fire Alarm Co., Inc.	863
Trippe Mfg. Co.	866
U. S. Motors Co.	865
Victorlite Industries, Inc.	863
Ward LaFrance Truck Corp.	790
Waukesha Motor Co.	808
Wentworth-Forman Co., Inc.	864
Wooster Brass Co., The	870